Of all the experiments in worker housing construction in the Soviet Union, it seems to me the most successful is the Azneft experiment. The Baku worker settlements are beautifully built . . . “These small towns are built by smart people,” is what you think about them.

—Maxim Gorky (1928)

After four years of Soviet control in Baku, the city’s socialist administrators were painfully aware that the provision of workforce housing was more than an ideological imperative. Housing was required to meet industrial production targets. The Moscow planner Aleksandr Ivanitskii, brought on to oversee the Baku planning effort, offered two logical options for the siting of dedicated worker settlements. A decentralized option would place settlements directly adjacent to oil extraction sites to limit the workers’ commute but would also require significant capital outlay to build all housing, services, and utilities from scratch. A centralized option would locate settlements at the edge of the existing city to take advantage of proximity to municipal infrastructure but would necessitate significant transportation upgrades to convey workers from their residential quarters to the oilfields north of the city.

Ivanitskii declined to choose an alternative for Baku, but his incisive synthesis of the issues won him two clients—Azneft and the Baksovet—each of whom favored a different option. Azneft, the Azerbaijan state oil company, hired Ivanitskii to design four decentralized worker settlements in the territory between the city
PART I. OIL CITY

and the anticline axis, along which drilling is most lucrative. At Stepan Razin, the first constructed settlement closest to the oilfields, Ivanitskii and his team designed everything from the settlement plan down to standardized housing types. By contrast, the Baksovet, the municipal Communist Party decision-making body, wished to pursue the centralized settlement option at the city’s northern edge. In the Armenikend neighborhood of Baku, Ivanitskii and team devised a standardized urban block that could be replicated throughout the city grid.

The Baku settlement projects Stepan Razin and Armenikend yielded two planning paradigms of marked influence in the subsequent phases of the Soviet experiment: the garden-settlement, a modified and socialized version of the English Garden City, and the urban superblock, a holistic residential quarter stocked with communal green spaces and services.

Garden City to Garden-Settlement

Ivanitskii referred to the future Azneft residential areas that he was tasked to design as “garden-settlements” (poselki-sady). The term is a curious conflation of two distinct planning paradigms: the garden city and the socialist worker settlement. With “garden,” Ivanitskii summoned Ebenezer Howard’s To-Morrow: A Peaceful Path to Real Reform from 1898, the book that established the garden city as an antidote to England’s heavily industrialized urban centers. Howard’s garden city is a population-limited model community (maximum 32,000 residents) placed at a remove from large urban centers to permit political and economic autonomy and to benefit from healthy, natural surrounds. To create a garden city, Howard explained, 6,000 acres worth of land is purchased by socially minded investors at depressed agricultural land values and held in trust by them. As the city develops and draws its own light industry, agriculture, and institutions, rents naturally rise. The trustees’ mortgage is then paid off, after which any excess municipal capital is plowed back into a social fund to support local welfare. Although Howard’s model is well known through its illustrative concentric diagrams, its author was less concerned with the garden city’s form than its function as an economically self-sufficient middle ground with the assets of both town and country.

Russians interested in city planning reform read about Howard’s model as early as 1904, but it was seven years before Howard’s book was translated into Russian as Goroda budushchego (The City of Tomorrow, 1911), and another year before the garden city received a proper exegesis in Russian. In City Improvement (Blagoustroistvo gorodov, 1912), the architect Vladimir Semenov described and parsed the formal and financial structure of the garden city, provided images of Letchworth, the first constructed example outside of London, and translated Howard’s original diagrams into Russian (figure 2.1). A Russian branch of the International Garden City Society was founded in St. Petersburg in 1913.
Worker Housing and Everyday Life (Rabochee zhilishche i byt, 1924), by P. Kozhanyi, proves that the revolution did not quell Russian interest in Howard’s settlement form. The book’s sole solution to the “housing catastrophe” in Soviet cities is the proletarian garden city (proletarskii gorod-sad). Kozhanyi argued that because land holds no fiscal value in socialism, there was no economic pressure to build tall. Furthermore, the underdeveloped Soviet construction industry was best equipped to build low-rise cottage-style housing on the garden city model. How was the proletarian garden city sited, and what did it look like? Kozhanyi provided the following guidance: “Before constructing the garden-city, it is necessary to select a high, healthy, wooded area with access to running water . . . the whole city should be girded with wide agricultural bands and planted with agricultural products. Here, we realize the union of town and country (smychka goroda s derevnei).”

The proletarian garden city described by Kozhanyi is concentric just like Howard’s diagram, with industry in a slim zone between the residential core and the exterior ring of agriculture. According to Kozhanyi, the garden city was a suitably Marxist spatial proposition because it would dissolve the urban/rural divide.

Baku’s planner, Ivanitskii, had experienced firsthand the original garden city, Letchworth. He understood his precedents, and he knew full well that the Azneft worker settlements could not be defined as garden cities. They were not fully economically or socially independent from the traditional city center of Baku, on whose services they would continue to rely. Ivanitskii instead cited worker settlements (rabochie poselki) just outside of the industrial cities of Birmingham, Bristol, Cardiff, Leeds, Liverpool, and Manchester as precedents, arguing that these were more comparable to the Baku case. Garden-settlement, Ivanitskii’s preferred term, does accurately describe the peri-urban Azneft worker regions he designed. They were settlements, which is to say agglomerations of worker housing proximate to industry but still closely tied to Baku. And, they were as garden-like as possible, under the hot, dry, salty environmental circumstances.
**Azneft Garden-Settlements**

Ivanitskii and his collaborators designed four oil worker garden-settlements for Azneft in 1925. Soon after his return from the United States in March of that year, Azneft director Serebrovskii presented to the Baku Executive Committee a potential site near the Stepan Razin ridge on the west side of Bulbul Lake for the Azneft settlement that would be the largest and most remote from the city center. The site was nearly equidistant from the historic oilfields at Balakhany, Sabunchi, and Surakhany, yet also comfortably removed from the anticline axis. Serebrovskii revealed that Azneft had already begun removing all residential structures in the village of Surakhany that sat on oil-bearing land to make way for more derricks. Ownership of housing units, whether urban or small-scale stand-alone structures like those on Baku’s periphery, was not unusual in the postrevolutionary years because the locals had never been serfs. As Mark B. Smith notes, up to half of the urban housing stock in the USSR—like the structures in Surakhany—was still owned as “personal property” (личнаia собственность) in the 1920s. The displaced peasants would soon be homeless unless Azneft promptly decided where to build new housing for them.

The Baku Executive Committee (Bakispolkom) approved the general settlement location for Stepan Razin but assigned Serebrovskii follow-up tasks to be completed before Azneft could proceed with construction. The Azneft and Baksovet Building Committees had to prepare together a report on worker settlement construction throughout Baku. In collaboration with colleagues from the Land Committee and the Department of Communal Services, Azneft had to work out a compensation plan for peasants whose arable land would be taken for the settlement. Finally, Azneft had to spearhead a special commission to define the most economical type of worker housing. Designs for standardized worker housing types and the entire settlement plan for Stepan Razin were, in fact, already well underway when the committee made its request. Azneft had provided Ivanitskii and his team with sufficient survey data to allow them to move quickly, and their task was simplified because the settlement site was effectively a tabula rasa, since all existing peasant residents were being evicted per Azneft’s plan. Ivanitskii had begun research and sketch designs for the Azneft settlements at the end of 1924, months before Serebrovskii asked official permission from the Baku Executive Committee.

Based on the drawings that remain, Ivanitskii’s self-crafted assignment was to locate the settlements definitively within the Apsheron Peninsula to skirt the anticline axis; design a skeletal general plan for each settlement down to the street pattern and resulting blocks; and locate sites for transportation, civic, and recreational infrastructure. The earliest extant sketch from the effort is a diagram of the Apsheron Peninsula in which the areas of proposed settlements are shaded in pencil (figure 2.2). This diagram clarifies that the boundaries of each settlement were set by existing conditions that included rail lines, lake edges, and topographical anomalies. Binagady and Montina (1, 2), closest to Baku’s urban fabric, are distinct and
separate settlements in this first iteration, as is Belogorod (3). Stepan Razin was initially split into two sections (4, 5). The final peninsula-scaled plan indicates significant modifications to the conceptual framing of these settlements (figure 2.3). Binagady and Montina merge into a single urban entity that grows naturally from the northeast corner of Baku, allowing them to stand in for Ivanitskii’s centralized settlement planning option. Belogorod is a middle ground option attached to the main rail line that connects Baku’s central station to the oilfields, and it lies just northeast of the industrial district of the Black Town and preexisting communities on the Caspian shoreline. Stepan Razin plays a decentralized role among the settlements. It sits as close as possible to the anticline axis without hampering future drilling potential and offers a short commute for the worker residents to the oilfields. Because Stepan Razin is so distant from Baku, it is largely self-sufficient, which makes it the settlement closest in spirit and design to Howard’s garden city.

The individual settlement plans, delivered to Azneft at the end of 1925, share common scale, planning sensibilities, and constituent elements. Transportation connectivity is the primary concern of these designs. The detailed plan of the northernmost settlement, Binagady, shows the area bounded almost entirely by two rail lines that meet at the top (figure 2.4). The line that wraps the eastern edge connects Baku to the Russian city of Rostov, and the line along the western edge links the settlement to the oilfields and back to Baku. In this and each Azneft settlement plan, Ivanitskii’s team carefully sited multiple passenger rail stations, indicated as long dark rectangles that sit adjacent to existing rail lines. These stations ensnare the settlements in the regional infrastructural network and serve as entry points in.

Figure 2.2. A draft plan of Baku, with proposed Azneft settlements shaded, 1924–25. 1. Binagady settlement, 2. Montina settlement, 3. Belogorod settlement, 4–5. Stepan Razin settlement. Boundaries of each settlement are set by existing conditions that include rail lines, lake edges, and topographical anomalies. Planners: Aleksandr Ivanitskii, Viktor Vesnin, Leonid Vesnin, et al. RGALI, f. 2991, o. 1, d. 17, l.54.
The two southernmost stations in Binagady are also the two northmost stations in Montina; these settlements adjoin along an east-west green spine (figure 2.5). The rail stations launch the geometrical logic of the site plans, as the Belogorod site plan demonstrates (figure 2.6). At Belogorod, a rail passenger who exits either of the two stations along the settlement’s northern edge steps on to a plaza embedded in a green strip that buffers residential blocks to the south from train noise and smoke. At the south end of the plaza, the passenger is offered the option to walk down any number of wide streets that splay out and connect to multiple commercial and civic hubs, the centers of collective life.

Shared green space is second only to transportation connectivity in the designers’ preoccupations for these site plans. All of the settlements are structured by a network of planted boulevards—long dark strips on the plans—that connect rail stations, parks, and commercial/civic hubs and that divide the settlements into smaller neighborhoods. Taking Binagady as the representative case, the Azneft garden-settlements are equipped with at least one sizable park that boasts a running track (the white lozenge-shaped space set in the shaded park area at the bottom of the plan), playing fields, and other recreational amenities. Small parks are sprinkled throughout each settlement, sometimes to serve as forecourts to civic buildings, but
more often simply to provide gathering spaces among the residential blocks. Unlike in English examples, however, where “green” is simply achieved by allowing space to remain unbuilt, the planted lushness promised by shaded areas on the Azneft settlement plans would require infrastructural gymnastics to overcome the naturally desert-like climate and salty soil of the Apsheron Peninsula.

It is the small green spaces on the Azneft settlement plans that indicate allegiance to the work of Letchworth Garden City’s architect-planner, Raymond Unwin. Ivanitskii was an avid follower of Unwin, and purportedly shook hands with the English architect at an international conference in London in 1924. Unwin proved
a willing interlocutor and guide to the English planning and housing scene to Soviet architects and planners in the 1920s, including a high-ranking housing official who visited him in the UK to consult on one-room housing precedents for Soviet steel city, Magnitogorsk. Unwin was a committed socialist from the time of his first job as an engineering draftsman in Manchester in 1885, and his subsequent writing and planning projects push spatial forms to generate a strong sense of community. In his 1909 book *Town Planning in Practice*, Unwin argued that “the features which we deplore in the present condition of our residential areas have been largely due to the excessively individualistic character of their development.” Under a private land
ownership regime, he noted, each site is developed as an isolated instance so that the benefits gained from pooling space and resources are irrevocably lost. Unwin foresaw a planning future in which there would be “opportunity for the common life and welfare to be considered first,” and where it would be possible “to group the houses around greens, to provide playgrounds for the children, bowling greens, croquet or tennis lawns or ornamental gardens for the elders, or allotment gardens for those who wish for more ground than the individual plot affords.”

Although the publication of *Town Planning in Practice* predated the Russian Revolution, the drawings that Unwin proffered for these common greens find their analogs in the
modestly sized shared open spaces spread throughout the residential blocks of the Azneft garden-settlements. 18

The land allotted for Stepan Razin straddles a rocky ridge and so offered limited layout options. The ratified plan divides the settlement into three sub-neighborhoods—two to the east, between the lake and the ridge, and one to the west of the ridge—each with its own civic/commercial plaza that radiates streets into the lobes of each section (figure 2.7). The hub and spoke development pattern in evidence at Stepan Razin, especially in the northmost lobe, bears a remarkable similarity to the western portion of Unwin’s plan for Letchworth Garden City (figure 2.8). In Town Planning in Practice, Unwin repeatedly stressed the importance of providing an enclosed urban center—he called this a place, always in italics—that artfully orchestrates pedestrian and vehicular movement and encourages people to congregate. Most often the rail station and its plaza serve this purpose as entry to the town, but additional subcenters are also critical, as they serve as places “where the minor public buildings of the district may be grouped and where a definite central effect on a minor scale may be produced.” 19 Unwin gave credit for this idea to the nineteenth-century Viennese architect Camillo Sitte, who advocated enclosed urban spaces as one means to combat the homogeneity of the urban expansion grid, exemplified in Baku by von der Nonne’s 1898 plan. 20 In both Letchworth and Stepan Razin the entry point is the rail station; at Stepan Razin, the sole rail connection occurs at the northernmost tip of the settlement where the existing line dips toward Bulbul Lake. The semicircular rail station plaza empties into a trident of streets, the middle of which becomes the settlement’s main north-south boulevard that leads, in turn, to its subcenters. As in all of the Azneft settlement plans, Stepan Razin is further divided by wide green boulevards, parks of various scales, and additional plantings that fill areas too steep to support construction.

After the general settlement plan for Stepan Razin was resolved, Ivanitskii and his planning team homed in on the area just south of the rail station to design the first phase of construction (figure 2.9). The rail plaza at the northwest corner of the drawing links to the southern subcenter along an urban spine, a double-wide planted boulevard lined with long, thin, multistory buildings. Flanking the spine, and surrounding the center and parks, are the small-scale residential buildings that compose the majority of the built fabric.

Stepan Razin’s Standardized Housing Experiment

At the same time that the site plans for the Azneft garden-settlements were being resolved, a multidisciplinary team of specialists commenced design on a limited number of standardized worker housing types. For this task, Ivanitskii invited brothers Leonid and Viktor Vesnin to be his architectural collaborators. Ivanitskii
Figure 2.7. A draft plan for the Azneft Stepan Razin worker settlement, Baku, Azerbaijan, 1925. Planners: Aleksandr Ivanitskii, Viktor Vesnin, Leonid Vesnin, et al. RGALI, f. 2991, o. 1, d. 17, l. 57.
and all three Vesnin brothers—Aleksandr, Leonid, and Viktor—knew one another through the Moscow Architectural Society, a prerevolutionary institution that took up the mantle of socialist concerns after the establishment of Soviet power. The society retained a conservative reputation, while also drawing members from among Moscow’s architectural avant-garde including the Vesnins, leading Constructivist architects.21

Architectural Constructivism, a prevailing Soviet practice from the early 1920s through the mid-1930s, was functionally and socially motivated as well as aesthetically ascetic.22 In his de facto manifesto for Constructivism, Style and Epoch (Stil’ i epokha, 1924), the architect and theoretician Moisei Ginzburg argued that a new architectural style appropriate to the Soviet age must be motivated by practical, not visual, concerns. He explained that “the formation of a new way of life for modern man will provide a starting place for these quests [for a new style], which will model themselves on industrial and engineering structures.” In the new Constructivist design process, “the goal that [the architect] will set himself will be not the unchecked fantasy of a detached idea, but the precise tackling of a task which
Figure 2.9. A draft project for the construction of the Azneft Stepan Razin settlement, Phase 1, Baku, Azerbaijan, 1925. The rail station at the plan's northwestern edge serves as an entry point, and planted boulevards and shared parks stitch the settlement together. Dark dots and dashes indicate various worker housing types, from single- to multistory buildings, while larger social institutions sit in planted precincts. Planners: Aleksandr Ivanitskii, Viktor Vesnin, Leonid Vesnin, et al. RGALI, f. 2991, o. 1, d. 17, l. 9.
includes determinate data and determinate unknowns. The architect will then feel that he is not a decorator of life, but its organizer.”

Ginzburg conceded that it was difficult “to speak of a formal language” of architecture emergent from such a method. In other words: it was not clear what Constructivist architecture would look like. Ginzburg proposed two steps to crystallize a functional and formal language for Constructivism. First, the Constructivist architect must discard “all those various capitals, columns, consoles and brackets . . . the entire treasure-house of decorative elements.” The visual result from stripping away non-essential ornamentation would be an architecture of “simple and clear expression.” Like his modernist architectural colleagues Walter Gropius and Le Corbusier, Ginzburg supported his textual argument in Style and Epoch with images of grain elevators in Buffalo, New York, that exemplified unadorned volumes produced by a functional design process. Second, the architect must embrace “standardization of the building process, [and] mass production of individual and constituent parts of architecture using the machine method.” Mass-produced architectural elements—from structural concrete blocks to steel frame windows—might limit the architect’s aesthetic choices, but because standardization permits efficiency, the Constructivist architect is freed up to practice on “an amazingly grand scale—the scale of enormous ensembles, entire urban complexes.”

Aleksandr Vesnin echoed Ginzburg’s formulation of Constructivism, writing that “this primacy of function over decorative academicism has always existed, but today its base is considerably larger and more complicated—that of modern man, citizen of a socialist country.” The Vesnins had already proven this method and suggested certain aesthetic tendencies in their All-Union architectural competition successes. The most notable was their third place Palace of Labor entry from 1923, a design that, according to El Lissitzky, set the social, spatial, and formal tasks of Constructivist architecture.

The research and utility-driven rationality of the Constructivist method was congenial to Ivanitskii’s planning outlook. In 1919, he teamed up with Viktor and Leonid Vesnin on a competition entry design for an autoworkers’ village in the town of Fili, which marked the beginning of the fruitful professional collaboration. The Vesnins were also aware of the issues particular to sites of oil extraction. In 1922, the brothers took first prize in a competition to design three oil workers’ villages in Grozny for Grozneft, the state-controlled company that was the Russian site’s equivalent of Azneft. Ivanitskii brought them on to the Baku planning project in early 1925. Although the Vesnins’ time working on Baku was limited—they were pulled away in late 1925 to oversee design for the Dnipro Hydroelectric Station in Ukraine—the standardized housing types they developed established an architectural language for Stepan Razin’s worker settlements and socialist institutions.

Viktor Vesnin articulated three housing-related issues that the design team sought to address in Baku. First, they wished to ensure that worker housing was separated from industrial sites in dedicated settlements. Second, they looked to connect
housing and production through intelligent transportation planning. Last,—and here is where architecture emerges—they hoped to “create a link between contemporary housing and the strong tradition and lifestyle of the local population,” meaning that their designs for replicable worker housing in Baku sought to meld the best attributes of modernity and tradition. The housing for Stepan Razin was designed during an ongoing sociopolitical debate about the novyi byt, or new socialist way of life that architecture sought to inculcate. Viktor Vesnin’s comment suggests that the design team was concerned that Bakuvians would find drastic changes to the domestic environment alienating. Taking a softer line than he had previously, Ginzburg explained in his book on socialist housing that Constructivist architects “found it to be absolutely essential to create a number of ways to stimulate a transition to a higher form of everyday life, without decreeing this transition.” Stepan Razin was a design experiment to establish worker housing types able to bridge that gap between a local past and a common socialist future.

Architectural tradition, in the case of Baku, was not easy to define. According to Audrey Alstadt-Mirhadi, census data indicate that Baku housing types were varied and often differed along ethnoreligious lines. Houses in the Muslim quarter tended to open onto inner courtyards, while those in the Russian and Armenian quarters opened on to the street. These inner-city housing types and those in the oilfields shared three architectural qualities: most were flat roofed, constructed of locally quarried buff colored limestone, and incorporated architectural devices like balconies and verandas to provide much-needed natural shading and ventilation.

By mid-1925, the Vesnin-led architectural team had developed for Stepan Razin thirty-six house variants of one-, two-, and three-story houses. A detailed blueprint from late in that year shows the footprint of each house constructed during Phase I development at Stepan Razin (plate 5). A small table in the drawing’s upper right-hand corner indicates that just four house types were used to create this 142-house section, making Stepan Razin a masterclass in architectural standardization (plate 6).

Like Azneft’s American houses, the Vesnin designs typically hold two mirrored units per building, making them “paired” types. A combination of photographs, drawings, and plans provides a partial catalog of these designs. Type I, seen in a site photograph from November 1925, is a simple one-story paired house. A shared dormer in the shallow-hipped roof marks the implied line of symmetry down the middle of the broad facade (figure 2.10). The body of the house is constructed of the traditional local stone—large blocks nestle against the completed building in the photograph—but the stone is parged with cement and whitewashed, giving it a smooth, modernist finish.

Common scale and architectural detailing among Stepan Razin housing type variants suggest that the architects worked within a tight set of design parameters to minimize cost difference between them. The houses share shallow-hipped roofs, large front windows to illuminate living spaces, and entry porches created by open
exterior corners. A rectangular column marks the outside extent of each porch, and a knee wall or railing provides a measure of exterior privacy to the residents.

To manufacture visual interest at the ground level among the limited number of standardized housing types the architects used clever massing, color and finish variation, and unit orientation. In Stepan Razin housing Type XI, the most volumetrically sophisticated house design featured in a perspective drawing, the front windows push out to become bays, an inset window turns the corner from facade to porch, and the porch column sits back to allow the thin roof edge to cantilever over the body of the house (figure 2.11). At least three paint colors amplify changes of spatial depth: bays and columns are white, the main body of the house is gray, and the beams are black.

In one of the most common types constructed in the first phase, Type II, the symmetrical, paired units expand in width as they move from front to back, a massing strategy that offers the viewer perspectival heterogeneity from the street (figure 2.12). A deep open-air veranda at the front of the house composes zone one; the middle zone holds the shared living/sleeping space; the widest service zone sits at the back of the house, with a kitchen/dining area, separate shower and toilet stalls, and a door that leads directly outside from the kitchen. Running water, sewer, and central heating are all indicated. To further combat perceptual monotony, the
Figure 2.11. Type X (top) and Type XI (bottom) houses, Azneft Stepan Razin settlement, Baku, Azerbaijan, 1925. Architects: Aleksandr Ivantskii, Viktor Vesnin, Leonid Vesnin, et al. RGALI, f. 2991, o. 1, d. 17, ll. 144–45.
Figure 2.12. Type II house, elevation and plan, Azneft Stepan Razin settlement, Baku, Azerbaijan, May 1, 1925. The symmetrically paired units consist of three zones: deep open-air veranda at the front; shared living/sleeping space; service zone at the back, with a kitchen/dining area, shower and toilet, and a side door to the exterior. Architects: Aleksandr Ivanitskii, Viktor Vesnin, Leonid Vesnin, et al. V.G. Davidovich, and T. A. Chizhikova, Aleksandr Ivanitskii (Moscow: Stroiizdat, 1973), 52.
designers alternated the ridgelines of the houses in relation to the road, and in some cases local stone was left bare for textural variety (figure 2.13). In a hilltop panorama taken near completion of Phase I the whole collection of small-scale Stepan Razin housing types is arrayed in the foreground and middle distance as crowded oil derricks jockey for space on the horizon (figure 2.14).34

**Figure 2.13.** Type II (background) and Type III (foreground) houses, Azneft Stepan Razin settlement, Baku, Azerbaijan, November 22, 1925. Architects: Aleksandr Ivanitskii, Viktor Vesnin, Leonid Vesnin, et al. Canadian Centre for Architecture, PH1998:0011:015. Gift of Howard Schickler and David Lafaille.

**Figure 2.14.** A general view of the Azneft Stepan Razin settlement, Baku, Azerbaijan, November 8, 1925. RGALI, f. 2991, o. 1, d. 17, ll. 11–12.
Although the majority of Phase I houses constructed were one-room paired types like the examples described above, the architects also designed multiroom, multiunit, and multistory housing typologies for Stepan Razin (figure 2.15). Type V, built in limited numbers, has a footprint length nearly double that of the paired types and was likely intended for larger families. Type VII stretches even further to accommodate four units in a long, low-slung body, the scale of which is broken down on the facade by an alternating light-dark paint scheme. Another four-unit type, Type XXIII, shown on the bottom of the drawing, is similarly long and low, but here the architects did not attempt to obscure the extreme linearity and repetition of the house. The syncopated rhythm of horizontal window strips and vertical doorways—capped at each end by a perpendicular side porch—accepts the additive aesthetics of multiunit housing in a manner that gestures at mass production, although these houses were built traditionally from masonry blocks.

Azneft began Phase II at Stepan Razin in 1926 to construct dense multistory buildings. The main spine of the settlement that ran from the rail station to central square was built up over the following two years with two- and three-story apartment buildings that riffed on the architectural language established by the small-scale units (figure 2.16). As in the paired houses, a two-story apartment type design is topped by a shallow-hipped roof and the building’s volume is broken down through variation in color, depth, and limited ornamentation (figure 2.17). The constructed two- and three-story apartment houses at Stepan Razin were much more austere than the drafted design (figure 2.18). The entryways read as gaps sliced into the planar facade, and any semblance of neoclassical ornamentation was stripped away.

All of these housing types viewed together exhibit massing variety and material diversity to create a hybrid local-modern architectural language, as Viktor Vesnin proposed. The spectrum of exterior finishes as built ranged from local stone left bare, to walls parged and painted in an assortment of colors. Verandas, bays, and deep eaves were justified for their shading capacities, but they also contributed to volumetric complexity at the building, and perhaps more important, at the settlement scale.

The writer Maxim Gorky visited Baku in 1928, at the end of the second phase of construction at Stepan Razin. He noted, in particular, the pleasing heterogeneity of the settlement: “From a distance the settlement of Razin looks like a military camp: one-story gray houses, exactly like the tents of soldiers. But when I visited the settlement, I saw that each house was ‘nicely done for its type’ (molodets na svoi obrazets), and that together they make the beginning of an original and beautiful town. Almost every house has its own architectural physiognomy, and this makes the variety of types of settlements amazingly vibrant.”

Gorky highlighted the perceptive difference in the settlement’s appearance depending on the length of view. Period photographs support his observation that the distant view was, indeed, camp-like. In aerial and long-range photos taken near
Figure 2.15. Type V (top), Type VII (middle), and Type XXIII (bottom) houses, all multiunit buildings, Azneft Stepan Razin settlement, Baku, Azerbaijan, 1925. Architects: Aleksandr Ivanitskii, Viktor Vesnin, Leonid Vesnin, et al. RGALI, f. 2991, o. 1, d. 17, ll. 141–42, 146.

the end of Phase I construction, Stepan Razin looked like a settlement built from a limited set of model houses in a short period—as it was. The types initially deployed were largely one-story, two- to four-unit houses set a similar distance apart that appeared more or less identical from afar. The starkness of the view was also not
helped by the fact that the “garden” component of the so-called garden-settlement was not yet installed to soften the blank and dusty site. Once a viewer, like Gorky, was on the ground among the houses, however, the varied “architectural physiognomy” eclipsed the perception of sameness. Close range photographs show that Vesnin-designed types were artfully mixed, and that variegated topography of the site caused site-based construction adjustments from one house to the next. The number of steps to reach the veranda, the height of the foundation, etc., changed...
from house to house. For Gorky, the lasting impression of Stepan Razin was of its vibrancy, due in large part to the skilled deployment of slightly varied housing types.

The benefit of standardized housing design was by now clear to Azneft. In 1925 alone, the oil company completed hundreds of units in Phase I at Stepan Razin; they built 110 additional houses on other sites and planned to construct 1,000 more.\textsuperscript{37} The economics of garden-settlement planning proved troublesome, however. Stand-alone two-family housing types, like the majority built in Stepan Razin’s first phase, were costly to build and the density was too low to accommodate the volume of oil worker families in need of housing. Constructivist architect V. Kuz’min argued that the “house-cottage” at Stepan Razin was a prime example of a nonsocialist housing type, because while “we built a huge number of houses, [we] increased the cost of construction and wasted the workers’ funds by not taking into account the difficulty of repairing and maintaining these houses.”\textsuperscript{38} Azneft’s decision to move from individual cottage-style houses to denser multiunit buildings in subsequent construction phases was, according to Kuz’min, indicative of a maturation of the socialist approach to housing.

\textbf{Armenikend: Workers’ Settlement in the City}

The Baksoviet, Ivanitskii’s municipal client, favored the centralized approach to settlement location and sought higher-density housing types from the start.\textsuperscript{39} They selected the Armenikend neighborhood for an urban workers’ settlement, a site at the northeast edge of the city in the area reserved by the Baku City Duma in 1897 as a charity village (figure 2.19). Armenikend was gridded and given numerical plot assignations by the von der Nonne plan in 1898, but it remained poorly connected to city services and was sparsely developed. Ivanitskii noted that by the 1920s, not more than 89 hectares worth of plots in Armenikend were built on (out of a possible 590), and the existing built fabric consisted of dilapidated one-story structures. Because of its relatively flat topography, Ivanitskii and his planning team considered Armenikend to be Baku’s “most capacious and valuable land bank.”\textsuperscript{40}

The Baksoviet had slated Armenikend for redevelopment before Ivanitskii began his work in Baku, but they halted the effort at the end of 1924 in deference to the general planning effort. By early 1926, Ivanitskii and his team, in collaboration with the Moscow architect Anatolii Samoilov, commenced design on a single urban block (kvartal) in Armenikend on which to experiment. Block no. 171—the Armenikend test block—would consist of “typical residential houses [that incorporate] more modern methods of development suited to local conditions.”\textsuperscript{41} These multiunit housing types would address new modes of socialist organization within the preexisting urban structure.
From this point forward the block, not the living unit, became Baku’s housing module. In the first round of site planning diagrams for the Armenikend test block, capitalist real estate logic held sway, as evidenced by the inclusion of lightly inked individual building plot lines (figure 2.20). In these diagrams, the planning team worked through twelve block variations that combined multiunit apartment buildings and open space. The first four “unacceptable” options, on the left-hand side of the diagram, are built up to and along the block’s centerline. These scenarios prohibit natural ventilation through the block and recall Berlin’s infamously dense mietskaserne, or New York’s equally problematic dumbbell tenements. The fifth unacceptable variation is less dense but retains the capitalist plot structure. In the remaining “acceptable” site planning options (numbers six through twelve), the underlying plot lines are merely an organizing grid that differs in each variation and offers a geometrical structure for each composition. The acceptable versions invert the traditional capitalist development logic that prioritizes buildings over open space. Each of these acceptable block types for Baku is porous, with regular
**Figure 2.20.** “Development schemes for blocks with individual plots (for small-scale construction),” Baku, Azerbaijan, 1926. I–V: unacceptable block development without through ventilation. VI–XII: acceptable block development with through ventilation. Architects: Aleksandr Ivanitskii, Anatolii Samoilov, et al. RGALI, f. 2991, o. 1, d. 17, l. 80.
openings from the street into a courtyard that hosts freestanding buildings. The shift in design scale from the plot to the block was not necessarily an ideological act by the socialist municipal client or the architects, but it was a spatial product of socialist land organization.

The following two sets of block variations dispense with plot lines altogether, rendering the block a conceptual whole (figure 2.21). At this point in the design process, a hard population density of 940 people per hectare was imposed, while site coverage (the percentage of the site occupied by buildings) remained the open variable. Early diagrams celebrate newfound design freedom by breaking the orthogonal grid. In the three variations on the upper left, housing units sit at forty-five-degree angles to the block edge, a compositional logic that is internal to the block rather than the street grid. These nonorthogonal plans yield low site coverage, at 24–30 percent, and require up to six-story buildings to maintain the proposed population. After brief experimentation, the designers homed in on orthogonal block schemes, seen on the right half of the diagram. These blocks hold low- to mid-rise apartment buildings that share landscapes and services. Site coverage in later iterations hovers between 30 percent and 40 percent, the height of the buildings is fixed at three stories, and the population becomes the block’s variable (figure 2.22).

These planning diagrams provide an unprecedented glimpse into the design process for a first-generation Soviet urban block. First, the individual plot, the residue of capitalist land development, was inscribed by the designers then purposefully erased. Second, the designers imposed new limits—site coverage and population density on the block scale—to provide goals for the design and a measure of comparability among the iterations. Third, they altered the design limits to meet the economic and constructional reality of the context. In Baku at the end of the 1920s, buildings taller than three stories were anomalous because of limited access to modern building materials and a relatively unsophisticated residential construction workforce. The block diagram ultimately selected for design development (on the upper right) is not the densest in terms of population or site coverage, but it

**Figure 2.21.** Block development schemes with 24 percent to 44 percent site coverage, Baku, Azerbaijan, 1926. Each of these schemes holds a hard population density of 940 people per hectare, while site coverage (the percentage of the site occupied by buildings) remains the open variable. Architects: Aleksandr Ivanitskii, Anatolii Samoilov, et al. RGALI, f. 2991, o. 1, d. 17, ll. 77–78.
Selected for design development for the Armenikend test block

34% coverage
600 people/ha.
@ 3 stories

Figure 2.22. Development schemes for orthogonal blocks with 41–43.7 percent site coverage (left), and 34 percent site coverage (right), Baku, Azerbaijan, 1926. Site coverage hovers between 30 percent and 40 percent, the height of the buildings is fixed at three stories, and population is the block’s variable. The scheme on the upper right-hand corner was ultimately selected for design development for the Armenikend test block, Block no. 171. Architects: Aleksandr Ivanitskii, Anatolii Samoilov, et al. RGALI, f.,2991, o. 1, d. 17, ll.,75–76.

maintains dedication to block scale design, porous site planning, generous internal common landscape, and three-story residential types.

The finalized plan for the Armenikend test block shows the design more or less as built (plate 7). The test block has 174 total units to serve 300 families (two- and three-room apartments were designed to hold two families each). Four apartment types, which range from one to three rooms, are distributed in three-story buildings that wrap the perimeter of the block and are separated periodically to allow passage from the sidewalk into the block interior. With the exception of three small residential pavilions on the interior, the center of the communal block is left open for landscaped plazas at multiple levels and small garden plots. One service building at the center of the block’s northern edge, divided into three sections, holds a laundry, kindergarten, and cooperative store.

In June 1926, Ivanitskii and Samoilov presented their proposal for the Armenikend test block to the Baksovet Committee for Workers’ Housing Construction. Ivanitskii provided the project overview and Samoilov walked the clients through
the drawings. Though a subconsultant in Baku, Samoilov was at the heart of Soviet housing research in Moscow. From 1925 to 1932, a period that spans the Armenikend project, Samoilov worked at Gosplan SSSR, at the Building Commission of the Council of Labor and Defense, and at the Scientific-Research Institute for Norms and Standards. He was engaged in the Union-wide effort toward architectural standardization, norm-setting, and rationalization of construction, and his professional rigor is evident in the Armenikend test block, which relies on typological design. Included in the team’s initial report to the Baksovet are data about block density, open space ratios per resident, unit mix, price per unit and per family, and dimensional information for common programmatic elements like ceiling height, kitchen size, stair width, and overall area of each apartment type. When referring to unit mix and areas at Armenikend, the team utilized terminology and standards common to Soviet housing policy: a “room” is a bedroom or living room, and the sum of these areas provides a metric for living space (zhilaia ploshchad’). Nonliving space (nezhilaia ploshchad’) includes kitchen, entrance hall, bathrooms, corridors, pantries, and other service areas, even if those spaces are used for living purposes.45 Tallied, living and nonliving areas quantify the total floor space (obshchaia ploshchad’) of a unit. This vocabulary persisted through the Soviet era.

Detailed plans and sections of the constructed Armenikend test block indicate that interior stairwells served two units per floor, six units per entryway; only units of the same type shared stairwells. All apartments were designed with double exposure (windows on two sides) to permit natural ventilation. Balconies, bay windows, and loggias provided ample natural light. The living area of the Armenikend test block apartments averaged 7.6 square meters per person, which Ivanitskii favorably compared to European and US examples, calling the Baku units “generous.” Given that a 1926 Soviet housing census found that over half of Soviet families lived in a single room, and another tenth in just “part of a room (corner),” these units represented a marked improvement in spatial allocation. A local comparison with the typical Stepan Razin unit also favors the Armenikend designs. Although the Stepan Razin Type II one-room unit boasted immediate access to the exterior and adjacent garden space, a single large room served the roles of foyer, living room, bedroom, and pass-through corridor to the kitchen in the back. The plan for Armenikend Type B unit, by contrast, shows a wide entry foyer that gives direct access to all rooms of the apartment (plate 8). Given that Type B was initially a communal apartment shared by two families, this foyer had two interrelated benefits: it obviated pass-through circulation and provided the unit’s occupants immediate access to their family’s private room and to the assortment of shared spaces within the apartment. A kitchen with pantry and a bath/shower alcove is on the immediate right upon entry to the apartment; the next door down the corridor leads to the water closet (toilet); and the door straight ahead leads to an extra communal space referred to as a dining room/
canteen (stolovaia). A wide balcony—this unit's direct opening to the exterior, effectively an additional room—is accessed from the two street-facing private rooms. Anticipating criticism of excess, Ivanitskii was quick to assure his clients that the Armenikend apartments were spatially and fiscally economical. In their official resolution on the matter, the Baksovet agreed, noting that the units met hygienic requirements and the demands of domestic life.

Not once, in the long meeting between the Moscow designers and their Baku clients, did the group discuss the Armenikend test block’s proposed aesthetic character. The architectural language of the constructed neighborhood was decidedly Constructivist, as contemporary views attest (figure 2.23). The transformation from the so-called transitional, locally inflected architecture of Stepan Razin in 1925, to the spare, unabashedly modernist expression of Armenikend in 1926, had a couple of likely causes. While Armenikend was an extension of the city fabric, its relative fringe condition allowed for a greater degree of aesthetic experimentation than might have been possible either within Baku’s historic center or at the first socialist settlement of Stepan Razin. The design of the Armenikend test block also coincided with a general strengthening of the Constructivist position within Soviet architectural discourse, especially for worker housing. In 1925, the same year that Armenikend was being designed, the Vesnins and Ginzburg founded the Association of Contemporary Architects (Ob’edinenie sovremenennykh arkhitektorov, OSA) as a professional advocacy group for Constructivism. The OSA began publishing the journal *Contemporary Architecture* (*Sovremennaia arkhitektura*, SA) as the group’s mouthpiece in 1926. SA concerned itself with worker housing by sponsoring competitions, publishing designs, and sharing model examples from the USSR and Europe. Through SA and European journals like *Das Neue Frankfurt*, also inaugurated in 1926 to follow the massive housing campaign in Frankfurt am Main, Germany under the direction of architect Ernst May, Soviet architects were aware that standardized flat-roofed multistory apartment buildings constructed of prefabricated parts were the ascendant norm.

In keeping with Constructivist rationality, the structures constructed on the Armenikend test block were flat roofed, planar, whitewashed residential buildings that enjoyed large windows and balconies. Volumetric dynamism—which the Armenikend test block had in spades—was the result of skillful placement of necessary architectural elements. There was no excess ornamentation. Although only four apartment types were utilized to create the block, it was a number nonetheless sufficient to generate variation at the building and block scale. The apartments had protruding entryways, long horizontal balconies, and vertical bays that moved forward and back against the “red line” of the sidewalk edge to create a spatially variegated experience for the passerby. The block’s facade alternated in light and shadow along the linear park to its south before the buildings turned the corner northward.
Birth of the Superblock

At the end of their June 1, 1926 meeting, the Baksovet Committee for Workers’ Housing Construction sanctioned the Ivanitskii-Samoilov team to proceed with the detailed planning of the Armenikend test block. Provided all went well, slightly tweaked versions of the experimental case would be installed on Armenikend blocks nos. 172, 221, 222, 223, and 224 (figure 2.24). By November, however, a counterproposal for Armenikend was on the table, designed by a local technician (tekhnik) named Kniazev. The Baksovet Control-Audit Commission deemed Kniazev’s design, tallying in at 91.16 rubles per square meter, more economical than the Ivanitskii-Samoilov design at 123.22 rubles per square meter. Ivanitskii complained in a letter to the new deputy director of the Baku Department of Communal Services that the exceedingly high estimates “drowned” the Armenikend test block design. A group convened by the Baku Building Committee to investigate the matter discovered that their colleagues in Department of Communal Services had purposely overestimated construction costs for the Ivanitskii-Samoilov design so that in-house designs by their own staff would be built instead. Nevertheless, the five additional blocks earmarked originally as copies of Ivanitskii-Samoilov’s Armenikend test block were built on the purportedly cheaper Kniazev design. Kniazev’s
residential blocks, a dormitory featured in many images of the neighborhood, and other structures built in Armenikend took their architectural cues from the Ivanitskii-Samoilov Armenikend test block. The spare, white, multistory buildings that ran east-west along the linear park of Armenikend Boulevard visually marked the threshold into a new, socialized Baku.

Despite the fact that the Armenikend test block turned out to be a one-off installation for the Moscow team in Baku, Ivanitskii regarded the repeatable urban block, well designed and serviced as the key to socialized planning:

What was created by our revolutionary overturn must . . . manifest as the decision to build whole blocks, precisely as is being done in Armenikend. When resolving the matter of the block, group of blocks, or even an entire neighborhood of the city, dwellings, laundries, kindergartens, etc. can be rationally distributed. But if you must resolve the issue separately per lot—nothing good will come of that, of course.

Before everything else, I recommend the construction of blocks or groups of blocks as fully serviced complexes. Further, I recommend designating space within the boundaries of this block for household garden plots—that will still exist even with a fully socialized economy—clean inner-block courtyards, gardens and children’s playgrounds.
The urban block, as described by Ivanitskii, is socialist on two accounts. First, planning entire blocks for an entire urban region is possible only by virtue of land socialization. Under a socialized land regime, planners and municipalities have the luxury to disregard the fine grain of individual plots and instead focus on larger, more comprehensive solutions. Second, each of these carefully designed blocks incorporates essential supplementary social programs such as laundries, kindergartens, allotment gardens, and common-use green spaces. Other neighborhood-scale programs like upper schools and markets are allocated by larger catchment areas. For a practitioner like Ivanitskii, who lauded rationality, the benefits of repetitive block planning were immense. State-sanctioned block types could easily be deployed, and their use saved time, money, and effort in both the planning and construction phases of socialist city development.

If the urban block’s inherently socialized nature was not reason enough for local administrators to support its use, Ivanitskii supplied them with economic justifications. In a typical prerevolutionary neighborhood of Baku, he argued, the typical block is extremely small. Small blocks require many streets, and in a modern city, streets are paved and have sidewalks and streetlights, infrastructure that is paid for and maintained by the local municipality. A large block—say a twenty-hectare block—“from the point of view of city improvements and planning, takes up four blocks in the old system, but eliminates four unnecessary streets. This means that the city economizes on the length of piping, paving, interior sidewalks, street lighting, etc. An extremely interesting prospect opens up if we go toward this type,” Ivanitskii argued.

The interesting prospect to which Ivanitskii referred was the superblock. The large residential block supplied with dedicated sociocultural and educational institutions, sports facilities, a central park, and service centers became a standard urban unit implanted throughout Soviet territories from the late 1920s on. In 1929, “urbanist” theorists like Leonid Sabsovich advocated the installation of housing combines (zhilkombinaty), fixed-population superblocks affiliated with sites of industrial production. The sole illustrative example of the zhilkombinat in Sabsovich’s 1930 book Socialist Cities (Sotsialisticheskie goroda) is the Vesnin brothers’ competition entry for the socialist settlement at the Stalingrad Tractor Factory (Stalingradstroil) (figure 2.25). These exact plans and axonometric diagrams also sit in Ivanitskii’s archive alongside the diagrams he and his team produced for the Armenikend test block. For Stalingrad, the Vesnins worked through block-based plan options, calculated the population for each, then repeated the typical block to arrive at a target demographic. The Baku superblock predated the Vesnin superblock by three years. The fact that Armenikend and Stalingrad materials are mixed together in Ivanitskii’s papers suggests that either Ivanitskii, the Vesnins, or both, acknowledged the debt of praxis at Baku.

The superblock proved a persistent planning paradigm throughout the Soviet era because it took advantage of socialist land ownership structure and was agnostic...
about architectural language. In *Moscow under Reconstruction* (*Moskva rekonstruiruetsia*), a book that described and celebrated Moscow’s 1935 General Plan, the chapter titled “Planning Residential Blocks” posited that notwithstanding a shift to architectural neo-classicism in the Soviet Union, housing and supplementary programs including landscape, schools, and cultural and commercial facilities would be designed symbiotically in Stalin’s capital. Later, during the Khrushchev era (1953–64), the Soviet housing crisis was addressed systematically with superblock microregions (*mikroraiony*) of prefabricated housing on Soviet city outskirts. The first *mikroraion* in Baku, designed in 1964, demonstrated conceptual fidelity to its predecessor, the Armenikend test block. Heavily trafficked streets surrounded the *mikroraion*, setting it off as a self-contained pedestrian precinct with all necessary amenities to serve the residential buildings that sat within it. Children walked to school without having to cross a street, and cultural and commercial facilities were all conveniently embedded within the block. Although the Armenikend test block was small compared to these later examples, it was nonetheless an exemplary test case for the workers’ settlement in the city, demonstrating that the sociocultural and open space amenities enjoyed in garden-settlements like Stepan Razin were possible within a dense urban setting.

Socialist housing experimentation was particularly robust in Baku of the mid-1920s due to the importance of the site within the Soviet economy in combination with the city’s physical and political dualities. Baku’s two local magnetic poles for economic development—the oilfields and the city proper—were overseen by two political entities, Azneft and the Baksovet, sworn to cooperate, but each with
a vested interest in solving its own immediate housing problem in the territory it controlled. Because Aleksandr Ivanitskii was in the employ of both, he and his design team were able to experiment simultaneously on the two paradigmatic conditions. For the first constructed decentralized settlement of Stepan Razin, the planner leaned on his professional knowledge and firsthand experience of the English garden city model, tweaked to meet the demands of a socialist context, an abbreviated project schedule, limited material supply chain, and the Transcaucasian climate. For the Baksovet, Ivanitskii and his architectural collaborator Samoilov worked iteratively through block-based diagrams to arrive at a solution for the centralized urban settlement of Armenikend. There, Ivanitskii and his team capitalized on another significant planning benefit of land socialization: the erasure of private parcels to render holistic residential development possible. The Armenikend test block marked the invention of a new urban unit—the superblock—a section of the city grid on which residential units, shared open spaces, and additional amenities such as laundries, childcare, and small shops sit in a pedestrian-friendly precinct. The legitimacy of the superblock paradigm was immediately confirmed by copycat blocks that filled out Armenikend in subsequent phases. Aerial photographs of the neighborhood taken in the early 1930s capture a vast grid of white, flat-roofed, multistoried apartment blocks to convey, in one sweeping view, that Baku’s modernization campaign extended to worker housing as well as the oilfields. Could this modernization campaign extend to the whole of Baku’s urban fabric and even further into the Apsheron Peninsula? The Baksovet and Ivanitskii sought to answer this question in the 1927 General Plan for Baku.