

Abstract:

The urban policies for the improvement of public spaces implemented over the last 5–10 years have brought Moscow closer to the image of a livable city. However, the discrepancy between the urban environmental quality in the central and the peripheral districts has become even greater. The city still lacks coherence—and a comfortable everyday environment.

The Yardstreet Project has been developed within the framework of the educational program of the Moscow Architectural Institute (State Academy). The purpose of the project is to bring the diversity of urban life to Moscow's peripheral areas without discrediting the heritage of soviet mass housing, but working with it, maintaining the uniqueness of the environment established.

Preliminary research showed that the incoherent and low-density living environment of the Moscow periphery offers great potential for the formation of new spatial relations. It would be difficult to create a traditional city street here—and there is no need in that; such environment provokes the emergence of a new type of street: a street-and-yard or a “yardstreet”.

The yardstreet is a new type of urban public space. It is a pedestrian street that appears within the boundaries of the existing street lot lines. With its complex spatial organization and a variety of social functions, the yardstreet makes the scattered block more compact, uniting its disparate parts. The yardstreet is both transit and place¹; architecture and landscape; a yard and a street.

Identifying these relationships in an existing residential environment requires a gentle attitude. To this end, a method of working with the urban fabric was invented: the so-called “thawing method”.

The yardstreet prototype and the method of its creation are inspired by Moscow, but the thawing principles are potentially applicable in other cities with similar types of residential development.

Currently the work on the project continues.

¹ in the sense of *placemaking*

Introduction. Spaces of interaction

The need for lively public spaces in a city and their constitutive role in public life is beyond all doubt today. There are many different definitions as to what makes a space public, but most point out the presence of communication and public interaction (be it cooperation or conflict) in such a space.

Open city squares, streets and markets have traditionally been the most important urban spaces of interaction. They were always full of people, busy and lively, as opposed to yards, small streets adjacent to houses, and quiet gardens—places of selective communication, privacy, and tranquility². These different types of spaces were meant for different pastimes and served as places for certain kinds of communication. Together, they constituted a multi-layered system of spaces varying in properties and purpose, which allowed the urban social life to evolve at a diverse range of levels.

The large, publicly available urban spaces that used to play the role of key interaction sites can hardly encourage citizens to communicate and develop social relationships today. This is especially notable in megacities³ and first of all in large post-Soviet cities modernizing today like Moscow. As a result of great imbalances of distribution of population and public spaces through the territory of the majority of such cities, newly re-designed public places like central parks, squares and streets become extremely contrast to the surrounding urban fabric. In an effort to be attractive to everyone (which makes sense and is consistent with their status), they often turn into the supersaturated and very powerful points of attraction, which in most cases leads to overcrowding. Having become too crowded, such spaces are rather perceived as inconvenient, hindering our free movement around the city⁴ and evoke an even greater desire to move away from the crowd and avoid any contact. Perhaps this all is just a temporary problem of a particular city, but the similarity of approaches to development and re-design of urban environment and also the sameness of quality standards for spaces of completely different nature and purpose (be it public square or private yard) cause numerous questions and cannot remain overlooked.

The overcrowding and dynamism can have other consequences as well: a permanent presence of a large number of strangers in intervals of urban fabric weakens a habitants' emotional connection with the place and their sense of security there. Such emotional connections are also necessary for construction of true “polis” in the very first meaning of this word as “citizenhood”, while being self-identified with the place one lives in, this person feels a stronger responsibility for the city space and city social life. Paradoxically, to be sociable and open to communication, one needs to feel the boundaries between self and others; the distance and freedom from onlookers' intimate observation.⁵ The feelings of security and comfort can be provided by intimate spaces, filled with concrete social content and individualized. [Gutnov, A. 1984]

Another important reason for the inability of urban public spaces to accumulate social ties may be their size. Inhuman scale is one of the reasons why the extremely large avenues and squares of modernist cities are well suited for demonstrations, but can never become places of active communication.⁶

As was already said, social life of a city consists of numerous layers of social and spatial relations of different kind and purpose: from feeling united with the crowd on main city squares, to more intimate relationships within the local communities. In the majority of modern large cities and particularly in cities of the post-communist space this system is often dramatically simplified. One of the consequences of such simplification is that the features urban space requires today for human relations (relations with other humans and with a city itself) to develop within it used to be more characteristic of places of solitude, deliberation and tranquility. With open access, such spaces could become new key sites of social life and interactions in cities. These spaces of semi-tranquility can be described in words of Boris Groys as “voids where society can evolve,” demarcated in the common urban fabric. [Groys, B. 2012] These “voids” are always complementary to the basic elements of the urban structure: thanks to

² “The ancient city cultivated special gathering spaces, from the agorae to the walled groves of the Lycaeum (hence, the word ‘lyceum’) and Hekademia (hence, ‘academy’), intended for quiet scholarly conversation and solitary contemplation. The ancient Roman city, the streets and squares of which were, as we have mentioned before, overflowing with a dense mass of people, with some difficulty allocates for the same purpose its walled gardens and courtyards of large thermae, surrounded by porticos, where one could find a place of tranquility in the shade for a short while.”

[Gutnov, A., Glazychev, V. 1990]

³ Simmel, Georg. *The Metropolis and Mental Life*. The Sociology of Georg Simmel' New York:Free Press, 1976.

⁴ “Paradoxically, the urban space does not become public by holding a crowd of people.”

[Groys, B. 2012]

“...the space becomes meaningless or even maddening unless it can be subordinated to free movement.”

[Sennett, R. 2002] (translation of russian edition)

⁵ “When everyone has each other under surveillance, sociability decreases, silence being the only form of protection. [...] People are more sociable, the more they have some tangible barriers between them [...] human beings need to have some distance from intimate observation by others in order to feel sociable. Increase intimate contact and you decrease sociability.”

[Sennett, R. 2002] (translation of russian edition)

⁶ “An individual cannot identify with these ‘steppes’ within the city, but there is no human mass to fill these artificial steppes, either! The ladder of scale was collapsing before our eyes, and it seemed there would be no end to this disintegration”

[Gutnov, A., Glazychev, V. 1990]

see also: I. Utekhin. *Publicity and Ritual in the Post-Soviet Space City/ Strelka*. Digest 2013. Moscow: Strelka Press. 2013

their scale and variability of form and content, they can emerge anywhere, easily blending into the fabric of the city and making its environment more compact. The deliberate “weakness” of such local sub-centers, their moderate saturation and uncertain typology protect these spaces from marginalization, unavoidable for most large urban public spaces.

The emergence of such places⁷ in the city is particularly essential now, at a time when the demand for comfortable urban space (here we should keep in mind not only public places, but primarily our everyday living environment and spaces of daily routine) is growing and the majority of big cities are becoming increasingly bipolar: either dominated by closed and private spaces or very public ones, overflowing with people and commerce.⁸

⁷ A place is a space with subjective social significance. The basic process of human interaction with a space is “settling in”: it is in the process of “settling in” that a person transforms an abstract “space” into a concrete, personally significant “place.” This does not merely involve the physical aspect, but above all, conceptual “settling in.”

⁸ “...as soon as we step out of the street door, there comes a shock: the space before us has nothing to do with us. And though we say ‘street door,’ there is no street behind the door; there is no secluded yard, connected to the street by an arch-gateway; there is no lane that would take in the residents of the houses and yards, bringing them to the street, which always led to the square. Indeed, by breaking the ladder of scale, we have lost a lot.”
[Gutnov, A., Glazychev, V. *The World of Architecture*. 1990]

I

Features of the new type

What qualities should a missing urban space possess to make our daily life more comfortable and to enrich a social life of a city without destroying valuable features and intimacy of residential neighborhoods and not turning them into a supersaturated public spaces? We can assume the following:

a. Scale and form: transit and place

These spaces are likely to be small in scale, proportionate to the human body. This does not mean that new spaces of communication need to be small; instead, they can have a complex shape and medium sized divisions. What is crucial is that in no point of this space does a person feel lost, surrounded by too much emptiness.⁹ To be desirable and viable in the conditions of big cities, the space of communication needs more than a storyline; it needs the ability to evolve over time: a script, duration and span. It should not only be a static place, but a transit point at the same time, as people have become less likely to gather in static places in the cities and tend to move through them instead. Today, we only attribute meaning to a space if it connects other places. [Pachenkov, O. 2012] Nevertheless, communication today is more likely to occur in spaces of gathering and tranquility. The new type of space required combines both characteristics: it meets the needs of the citizens' mobility and provides tranquility.

b. Uncertainty: visibility and privacy

Spaces where everyone is open to communication are safe. The sense of safety in open spaces strongly correlates with an ability of space to be endowed with a subjective meaning, degree of its development and presence of design. There also must be actual safety, which is largely provided by visibility, constant presence of observers and, of course, the design of the environment itself (lighting would be a prime example). Visibility and supervision must be clearly observable and work in both directions: hidden security cameras and monitoring systems do not count. We want to see those who see us. However, the opportunity to retire to privacy, away from prying eyes, must still not be overlooked.

These two qualities seem contradictory, but a small public garden could be considered an example of a space that is both visible and private. Greenery and a complex layout of paths allows the visitor to retire for a while, but the artificial lighting, good audibility and low foliage density ensure their safety.

d. Content: accessibility and exceptionality

Intimacy doesn't mean any kind of fences or access restrictions: the spaces of interaction must remain open to everyone both physically and emotionally. They are publicly available, but have their own character and do not seek to be attractive to absolutely everyone. This is simply achieved with a help of specific commercial content and, what is primary, with a help of its super locality reflected in the design and functioning of space.

Shops, cafés and other services are certainly a great attractor and incentive to the development of an urban space, but in large numbers they can be dangerous for its fragile atmosphere. Excessive focus on commerce prevents the visitors from developing a sense of familiarity, an emotional bond with the space. Ambiance and storytelling, however, increase the value of these bonds; they reveal the significance of the place and make it just as attractive. Memories and emotional attachments to a place develop over time, but your right to be there can be manifested by the very location of the space (in your block or on your usual route), functionalities (a café or a kiosk you are particularly interested in or a playground with your favorite swings), a design to your liking, or simply the need to often go round there.

c. Design: architecture and landscape

It is also very important to work on the design of certain space not only with the means of architecture, but also landscaping, allowing it here and there to remain almost wild. Intentionally overlooking some fragments of the space means still giving them particular meaning, like to comprehend and implement a certain status with the method of setting boundaries.

The features listed create a description of an inherently controversial urban space. It combines the characteristics of a settled-in yard and those of a city street: two mutually-determining, opposite spatial stereotypes. The new

⁹ "This scale [the scale of the old, naturally emerging city] always remains vernacular, natural to us, as it is the scale of the 'scene' of human behavior, where the individual is never lost. This scale sets a spatial 'frame' specifically proportionate to them. The maximum width of a street in the XVIII and the first half of the XIX century was up to 30 meters between the houses; that is, 25 meters between the edges of the sidewalks. Which means that with normal vision, one could not only easily identify a familiar face, but also notice its expression. The maximum width of a square, as a rule, did not exceed 100 meters—so, one could easily recognize a familiar figure, gait, and gestures"
[Gutnov, A., Glazychev, V. 1990]

space of communication enables movement and is always open to strangers—as a street; but it also remains secluded, cozy, and “familiar”—as a yard. This complementary, settled-in void in the urban fabric serves as a landmark—not unlike a square; but it is human-scaled and allows the visitor to retire to privacy—as a quiet garden or park. The new spaces are highly ambiguous in the sense of the place type: it is both transit and place; architecture and landscape; a yard and a street. The precise term would be “yardstreet” (russian—“дворулица” [dvorulitsa] with a word “двор” [dvor] for “yard” and a word “улица” [ulitsa] for “street”).

The preceding arguments cast doubt on the ability of the traditional city street to become a space of communication. The point, in our opinion, is not so much in the type of space, but rather in the fact that today the streets of large cities can hardly become urban spaces with subjective significance and social memory. However, streets are still the most popular type of urban space: they provide connectivity and the freedom of movement for the citizens, structure the urban fabric, making it clear, recognizable, and continuous, and facilitate orientation in the urban environment. The new type of communication space—the yardstreet—is a new type of street, but one that is capable of becoming a “place” in the big city.

II Moscow

Such spaces are especially relevant for Moscow: a huge, densely populated city with a great imbalances of distribution of population, pedestrian and transportation networks, public spaces and services within the territory of the city¹⁰. The share of roads and driveways on most of the territory amounts to about 6% against the required 20–30%¹¹. The vast majority of these already scarce links can hardly be called “streets” in the sense of space for people and public life¹². Often the excessively large scale of roads and the priority of traffic prevent them from becoming spaces of communication;¹³ and the discontinuous front not adapted for use distances them even more from the “street” status.¹⁴ As a result, 90.4% of the territory of Moscow is characterized by extremely poor connectivity; and the low density of the road network leads to a low density of distribution of public spaces. This only aggravates the monocentric structure of the capital and increases the semantic gap between its periphery and the center.¹⁵ Additionally, nowadays Moscow faces a problem of dilapidation and new ways of the renewal of urban fabric are to be developed¹⁶. This, in turn, is followed by the issues of the urban land division system, urban land management and ownership structure¹⁷.

All these issues worth to be solved, starting from the periphery: that is where the demand for changes is the greatest; and where tremendous potential for the emergence of new streets and spaces lies.

Moscow periphery consists of various types of urban-planning units, usually much larger than the blocks of the central part of the city and with a more scattered spatial structure. In summary, they are called micro-districts or large city blocks; and particularly large units are referred to as interthoroughfare areas. All these can be differentiated by the scale and characteristics of the development organization.

The dimensions of these units and their structure features led to the fact that the density of development on the periphery of Moscow is much lower than in the center of the city; its space is highly unstructured and poorly connected. The unstructured space of the periphery results in an almost complete lack of clear boundaries

¹⁰ Archaeology of the Periphery. Research for the Moscow Urban Forum, 2013 Megacities: Success Beyond the Center

¹¹ Old Moscow. Inventory// Project Russia. 2011. Vol. 62, Annex

¹² “In our urban planning practice, the attempts to protect the sidewalks from the proximity of cars and exhaust fumes resulted in the progressive expansion of the ‘street’—and thus, in its disappearance.” [Gutnov, A., Glazychev, V. 1990]

¹³ The profile of over 70% of Moscow streets is wider than 20 meters, which is more than the comfortable width, going by the streets of European cities. The profile of approximately 39–40% of Moscow streets today exceeds 40 meters, which is comparable to the dimensions of a motorway.

Mosurbanforum. The Street: A Transit Zone or a Social Space?

Video file: URL: <https://www.youtube.com> (accessed: 25.09.2016)

¹⁴ “Nor does a street conforming to traffic engineering standards necessarily fulfil Lynch’s requirements for a memorable path. Such a path has both a beginning and an end, definite places or nodes along its length – places of special use and activity; such paths can be scaled, have contrasting elements but above all else, they must present to the observer a stimulating and memorable image of connected places.” [C. Moughtin. 2003]

¹⁵ Habidatum. Emotions: Muscovites’ Mental Geography

URL: <http://habidatum.com/project> (accessed: 25.09.2016)

¹⁶ There are up to 9336 dilapidated houses of the first series of soviet mass housing construction in Moscow, which account for about 14% of Moscow’s housing stock. These buildings are distributed throughout the entire city, but are mainly concentrated in it’s middle zone and form a belt with a width of 5-7 km. Today, a program for the demolition of these buildings is already adopted, but the strategy for the subsequent development of sites remains unclear.

¹⁷ 97% of Moscow’s lands, including incomparably major part of lands in residential neighborhoods counts as a state or municipal property

between public and private areas here. Most of its territory is public and has no clear ownership status. The homogeneous space of the periphery is primarily seen as “belonging to no one,” which negatively affects the quality of the urban environment and leads either to the open space not being used at all or to individual cases of infill, which are not always successful. [Sergey Shoshin. 2011]

On the one hand, all this makes the development of public life on the periphery impossible, and on the other, it is due to the low density and scattered structure of the periphery that vast amounts of “free” space are available for new streets. The insufficient number of articulated links contributes to the emergence of an array of paths and semi-secret passages within large urban-planning units. Hidden within a residential environment, these invisible routes¹⁸ are a rich source for the emergence of new streets.

see Fig. 1:

Size and density of development of urban-planning units: blocks in the city center and on the periphery of Moscow

see Fig. 2:

Availability of the territory of Moscow periphery

[source: Archaeology of the periphery. Research for the Moscow Urban Forum. 2013. “Megacities: Success Beyond the Center”]

Great potential lies in the transition zone between the commuter micro-districts of the periphery and block development of the center—the so-called “buffer zone”. It mainly consists of hyperblocks, which are units up to 30 hectares in size or more formed by the whirl and layering of various urban development approaches. These formations are often characterized by perimetric development, which was envisaged by the master plans for the city reconstruction, but not fully implemented in most cases. Randomly completed using later planning models, the districts have retained many traces of streets that were started but eventually abandoned or forgotten.

see Fig. 3:

Examples of abandoned streets

see Fig. 4:

Map of the “buffer zone” of Moscow [the work on the map still continues]

III

Thawing method

The development of a network of new city connections could potentially begin from the “buffer ring”, but the organization and particularities of the hyperblock development render the creation of traditional streets here impossible. In the scattered residential environment, routes do not have a clear readability, pronounced front or coherence. The ground floors of the buildings are mostly not intended for public use, which would be necessary in order to make the street safe, attractive and encouraging public interaction. [Jacobs, J. 2011]

A clearly visible and intuitive path and an active, functioning front are the essential attributes of a traditional lively street. Creating such a street in the residential environment of peripheral districts would require a radical change in the urban sculpture, which is not always possible. In addition, this method could be too expensive, time-consuming and intrusive to the existing environment with its tranquil everyday routine, which is precious feature of non-central districts. Streets of a different type are required here—yardstreets.

see Fig. 5:

Comparison of the outlines of a traditional and a potential new street

The creation of a new lively public space does not necessarily entail the transformation of the urban sculpture. This is evidenced by the cases of conversion of existing city streets into pedestrian zones. Another example, even more remarkable, are new structures that spontaneously arise in the urban fabric, such as streets and squares formed with the help of kiosks. These new structures often sprout on the way from metro stations to residential areas: as a sort of spontaneous attempt by the periphery to create active urban space where it is required, but not provided for by the development plan. This is the demarcation of special voids for public interaction in the common urban space. [Groys, B. 2012]

Defining the shape of a new street and allotting it an area in the publicly available space of hyperblocks is one of the most crucial and challenging tasks. Identifying and articulating the most active routes in the existing environment requires careful and gentle action. It is important to take into account the specifics of use of the inner territory of the hyperblocks by the residents of these units: the existing centers of activity must be preserved; secluded private areas must not be destroyed; the existing scenarios of use must be enhanced and, if

¹⁸ desire paths could be a good reference

necessary, new ones must be gently introduced. This method could be seen as “thawing” a new street in the urban fabric.

see Fig. 6:

Yardstreets of the “buffer zone” Moscow [*the work on the map steel continues*]

The thawing method is a method of creating a new and distinct spatial connection in the city, on a site where its appearance is necessary, but the creation of a city street is not appropriate, not provided for, or not possible due to the nature of the development. Designing such a connection is carried out in stages, based on the preliminary analysis of the site.

The structure of the method:

1. Analysis of the functional composition of the site and adjacent territories

Data must be collected on the purpose of the ground floors of the buildings and on the availability and location of playgrounds, sports grounds and other facilities, as well as social, state and other institutions.

Gentle thawing actions imply a respectful and caring attitude to the existing activity centers in the residential environment, so it is necessary to identify inhabited yards, popular public parks, and other hyperlocal points of attraction and note the nature of their use.

2. Analysis of pedestrian routes and traffic flows

The pedestrian routes established in the hyperblock (or passing through it) must be analyzed, and their nodes pinpointed. At this stage, the operation of public transport around the perimeter of the block, the system of parking lots and car driveways must also be analyzed.

The array of spontaneously established paths and passages is, to some extent, the pedestrians’ improvised attempt to organize the poorly structured space of the block. These paths will determine the form and function of the yardstreet. The future network of new connections is formed by the articulation and identification of these routes.

see Fig. 7:

Thawing method illustrated by the example of Blocks 93 and 94 of the Tekstilshchiki district in Moscow

stage 2: identifying the most active pedestrian routes in the block

3. Identification of visual communications

The most and least visible areas within the district must be identified. It is important to analyze the orientation of the entrances of residential buildings; the existence, nature and potential of yards and their location relative to the building entrances. A major role is played by the presence and nature of fences and other visual obstacles. Constructing and analyzing izovists helps in the work with the navigation system in the block: the data on the width of the field of view and its visual quality are necessary for creating the storyline of the new space.

see Fig. 8:

Thawing method illustrated by the example of Blocks 93 and 94 of the Tekstilshchiki district in Moscow

stage 3: visual analysis of the territory of the districts: connectivity of site areas

4. Sociological research

The size and composition of the population of the hyperblock and the specifics of how its territory is used by different citizens groups must be analyzed. In the course of work on the project, constant communication with the residents of the block is essential; surveys and work with focus groups must be carried out, monitoring and taking into account the reaction of the locals to the proposals of the project.

5. Definition of the project area

The yardstreet should occupy undeveloped plots belonging to no one along the routes identified at the previous stage of the method; it is thus necessary to analyze the ownership structure of the land in the block and identify “free” land where the yardstreet can be created.

see Fig. 9:

Thawing method illustrated by the example of Blocks 93 and 94 of the Tekstilshchiki district in Moscow

stage 5: definition of the territory to be developed

6. Programming

The spatial and functional zoning of the yardstreet space must be determined: it includes mapping the most active and the quietest areas; the location of the main squares; the amount and purpose of the function units (pavilions, gardens, etc.) and their interconnection.

see Fig. 10:

Thawing method illustrated by the example of Blocks 93 and 94 of the Tekstilshchiki district in Moscow

stage 6: programming, zoning the yardstreet

7. Setting boundaries

The space of the yardstreet must also be structured as a whole: by determining the boundaries between spaces of different types and purposes, identifying their nature and permeability, and indicating the lines of the recreation of the street front and its configuration.

Pavilions or various street design elements and small architectural forms like a row of lampposts, colonnade, differently arranged benches, parapets or greenery can serve as boundaries. Even a change of the pattern of paving or a change of type of flooring and the difference in heights can work as good demarcators of the edge of space. It is important to accent that the boundaries established by the project are not barriers to movement, but on the opposite are the "seam zones" and the lines of contact between different types of spaces.

see Fig. 11:

Thawing method illustrated by the example of Blocks 93 and 94 of the Tekstilshchiki district in Moscow

stage 7: quality assessment of the boundaries of the newly formed spaces

After the boundaries are planned, the ladder of scales that is often abandoned in such an unstructured area can be recreated; and the system of embedded, gradually becoming more complex socio-spatial urban structures can be expanded, ensuring a person's smooth entry into the entire urban society. *[Gutnov, A. 1984] The yardstreet is thus a tool for structuring the scattered environment of the city periphery and establishing boundaries between private and public spheres, private and public spaces.* These changes can improve the quality of urban life in general.

When defining the boundaries of the yardstreet and the nature of the newly formed spaces, it is important to avoid the fragmentation of the hyperblock into separate independent segments. Instead, the yardstreet must help unite the vast territory of the hyperblock. It should become a place common to and shared by the residents; one of the first points of reference of the urban space; a new big yard for the big block. This new street (and yard)—yardstreet—is the new, additional link in the chain of our daily experienced urban spaces.

8. Design

A visual language and common design code principles must be developed for the newly formed spaces. This step involves the development of different paving options; selection of materials and work on their tactile qualities; the development of common navigation principles and different types of street lighting; the design of pavilions, street furniture, and other elements of the yardstreet.

Conclusion. Context

The prototype of the yardstreet and the thawing method discussed above have been developed specifically for Moscow. Their appearance is largely due to the peculiarities of this particular city, but similar arguments could be applied to other cities. Interestingly, spaces like yardstreets sometimes emerge in completely different environments, as evidenced by the project of superblocks in Barcelona¹⁹ making Eixample, a seemingly perfect district with a regular grid of medium-sized blocks, pedestrianized. Another example is the revival of play streets²⁰ in the UK and Australia or the similar *woonerven*—living streets/yards, traditional in the Netherlands and Belgium. In these cases, new street spaces are created without the thawing method. They rather emerge by transforming the urban spaces already firmly established within the building lines.

In the 1970–1980s, projects in some way similar to yardstreets were also created for Moscow, but mainly in the form of proposals for the reconstruction of the city center. These include, for example, the second stage of reconstruction of the Arbat,²¹ which was never realized, and the project of the Sovetskaya Square–Pushkinskaya Square pedestrian zone.²² The latter is a pedestrian street that emerges in the historic development of the center, employing a method very similar to thawing. The route, passing through the arches of old blocks, is articulated with the help of design and reinvention of the ground floors of the buildings—with little means and gentle action. Sadly, the project was never realized till the end.

see Fig. 12:

project of the Sovetskaya Square–Pushkinskaya Square pedestrian zone, master plan
Authors: I.R. Galimova, O.E. Ryzhaev, O.V. Kozlov

A contemporary example of thawing would be the passage that was recently laid in the Block 41 of the Arbat district.²³ Going through Romanov Dvor, the new connection neatly links Vozdvizhenka to Bolshaya Nikitskaya Street, opening the internal environment of a block that is no longer residential.

Such projects confirm the need for the transformation of the urban fabric and creation of new conditions for social life in big cities. These new streets can contribute to the development of local self-management; they consolidate city environment and fill it with quality content, providing recreational opportunities for all groups of the population and improving the safety of the urban environment, making a positive impact on the social ecosystem of the city in a whole.

A new type of interaction space is called for and can emerge in virtually any post-Soviet city where “free planning,” micro-district development, or large city blocks were implemented. The same applies to young modernist cities—the so-called utopian cities. The new method of working with the urban fabric can prevent the vast spaces of many Russian cities from being discredited and make them more comprehended.

In addition to structuring and improving connectivity of urban spaces, yardstreets can also solve a number of other issues that are particularly salient in cities similar to Moscow. Their appearance in the space “between” buildings is not possible without rethinking and changing the urban land division system. Yardstreets can prove to be an excellent economic tool and lead to the fact that a high quality urban environment will become a new product on Russian real estate market and count as a powerful competitive advantage among developers. They can be considered as one of the tools of urban planning regulations and management, as an instrument of soft and staged renovation of the structure of the city. Emerging within the boundaries of the existing street lot lines, yardstreets can serve as a tool for reserving sites for the formation of new urban spaces. Beginning with a predominantly pedestrian routes, the network composed of yardstreets can become a secondary street network and then a part of the conventional transportation network.

see Fig. 13:

Yardstreets of Moscow: map of the alternative street network [*the work on the map still continues*]

Today the work on the project continues within the framework of the research program of Meganom office, which is a practice for architecture, urban design and research, based in Moscow.

¹⁹ Superblocks, Barcelona Answer to Car-Centric City/ Cities of the Future. 21.07.2016
URL:<http://www.citiesofthefuture.eu/superblocks-barcelona-answer-to-car-centric-city/>
(accessed 19.10.2016)

²⁰ London Play. URL:<http://www.londonplay.org.uk> (accessed 19.10.2016)
Play Streets Australia, URL: <http://www.playstreetsaustralia.com> (accessed 19.10.2016)

²¹ Construction and architecture of Moscow. 1979. Vol. 9. 3–9

²² Architecture. Works of design and research institutes of Moscow 1984–1988/ Edited by I.G. Biryukov Moscow: Stroyizdat. 1991

²³ project of the Romanov Alley in the Romanov Dvor business center in Moscow
URL: <http://www.the-village.ru/village/city/infrastructure/127713-alleya-romanov> (accessed: 25.09.2016)

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YARDSTREET

schemes and illustrations

II

Moscow

1.
blocks of the central part of the city

S M²
BCR %



8 300
56,7



10 050
69,8



13 892
54,4



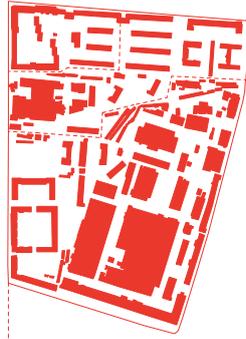
19 123
64,3



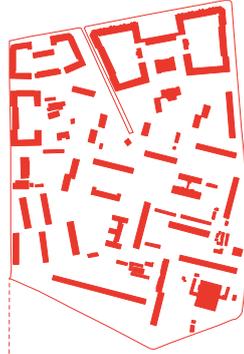
20 800
60,7

2.
blocks of the periphery of Moscow

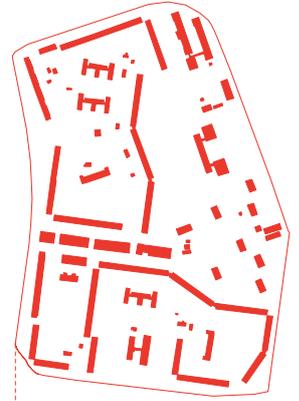
S M²
BCR %



176 420
34,8



190 260
16,9



239 707
12,7

Fig. 1:
Size and density of development of urban-planning units: blocks in the city center and on the periphery of Moscow

Moscow

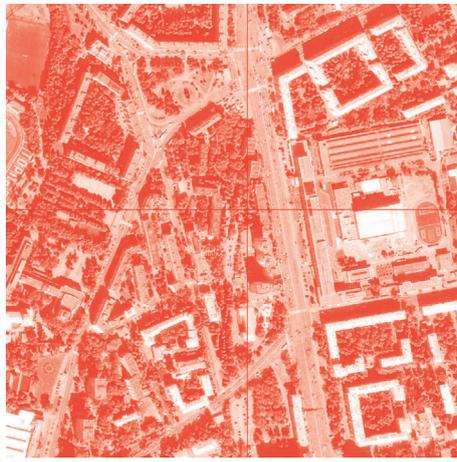


73,4% open territories

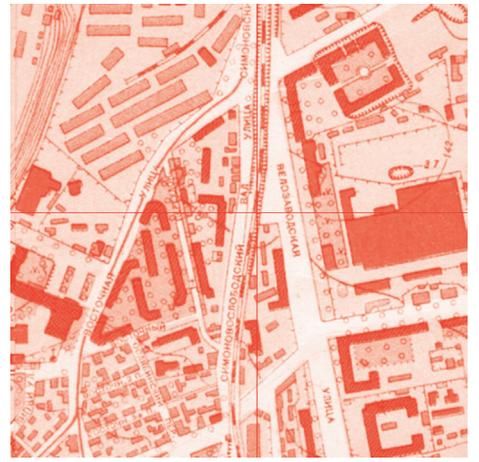
Fig. 2:
Availability of the territory of Moscow periphery
[source: Archaeology of the periphery. Research for the Moscow Urban Forum. 2013. "Megacities: Success Beyond the Center"]

Moscow

1.
Simonovoslobodsky Val Street,
comparison of 1952 and 2016 plans;
as of today: not completed



2016



1952

2.
2-y Saratovskiy Proyezd,
comparison of 1957 and 2016 plans;
as of today: not completed



2016



1957

Fig. 3:
Examples of abandoned streets

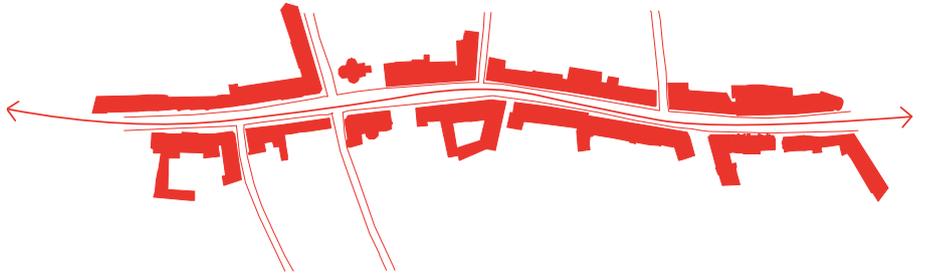


Fig. 4:
Map of the "buffer zone" of Moscow
(the work on the map steel continues)

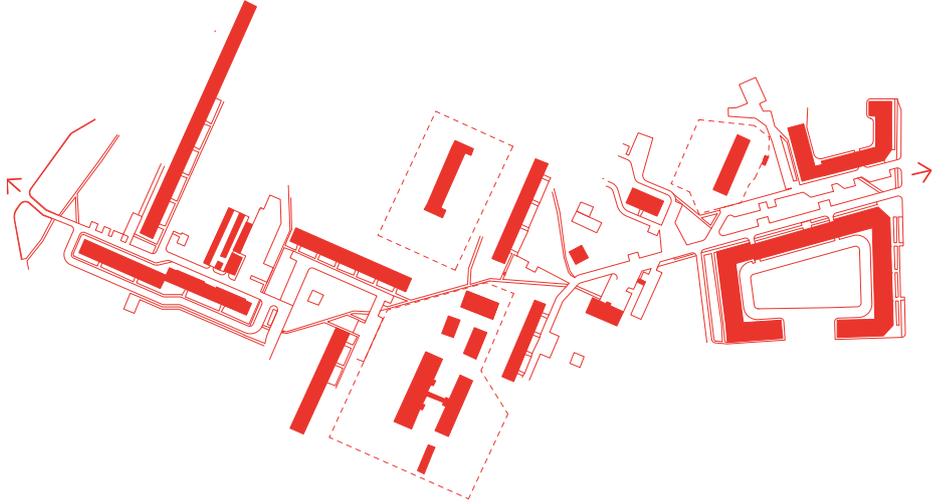


Thawing method

1.
one of the central Moscow streets



2.
pedestrian route in one of Moscow's hyperblocks



3.
the area of a potential new street

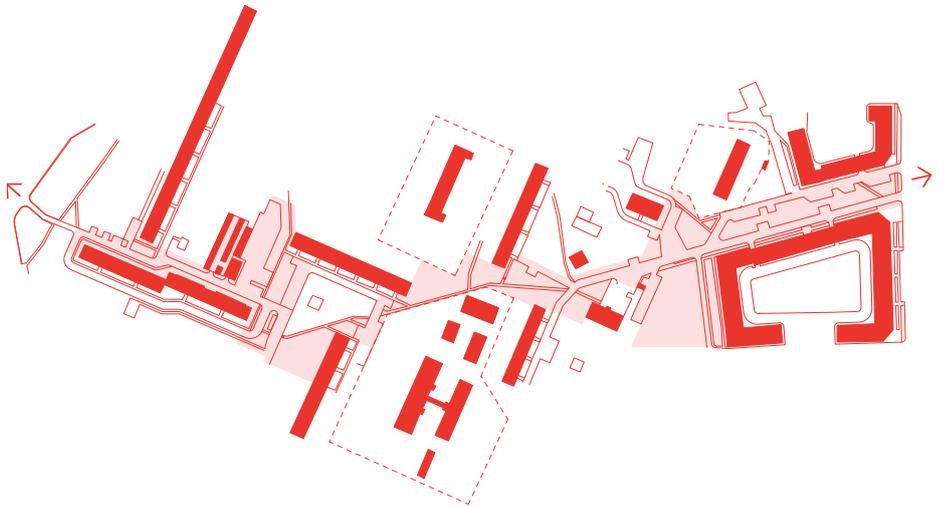


Fig. 5:
Comparison of the outlines of a traditional and a potential new street



Thawing method



---- potential new street
— abandoned streets



Fig. 6:
Yardstreets of the "buffer zone" Moscow
(the work on the map steel continues)

Thawing method

Stages:

1. Analysis of the functional composition of the site and adjacent territories

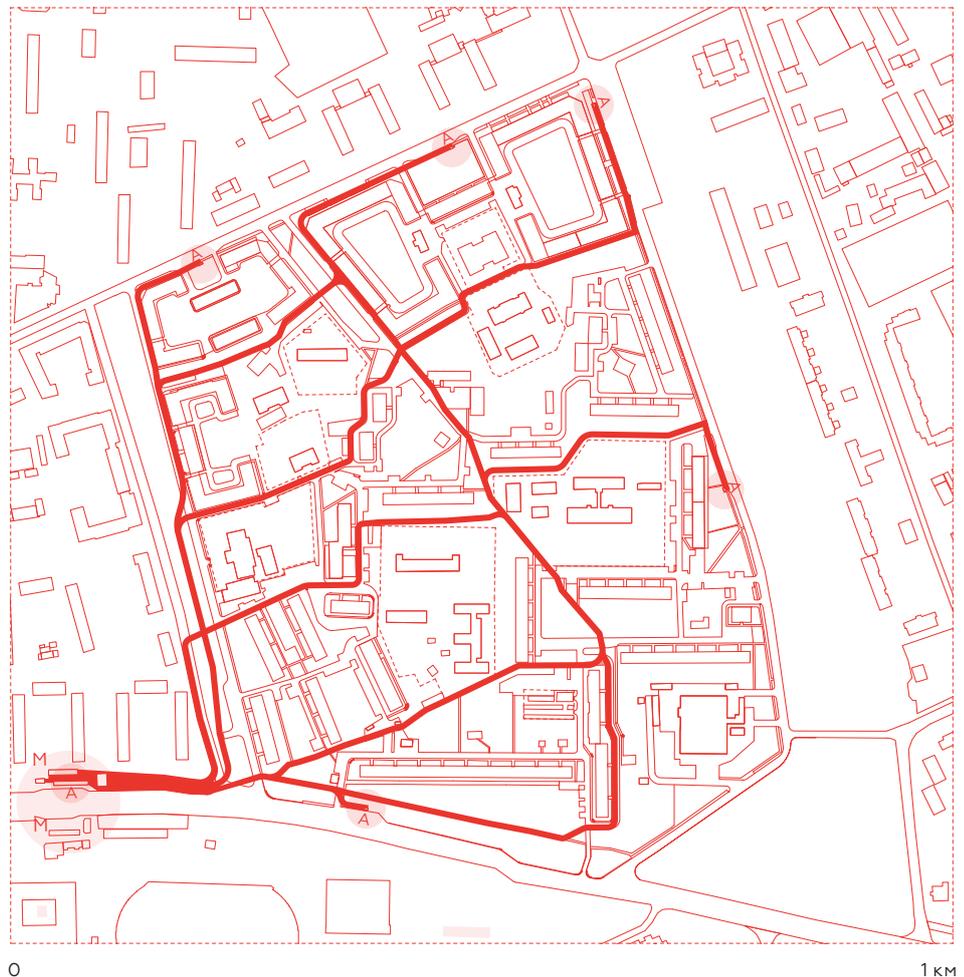
Data must be collected on the purpose of the ground floors of the buildings and on the availability and location of playgrounds, sports grounds and other facilities, as well as social, state and other institutions.

Gentle thawing actions imply a respectful and caring attitude to the existing activity centers in the residential environment, so it is necessary to identify inhabited yards, popular public parks, and other hyperlocal points of attraction and note the nature of their use.

2. Analysis of pedestrian routes and traffic flows

The pedestrian routes established in the hyperblock (or passing through it) must be analyzed, and their nodes pinpointed. At this stage, the operation of public transport around the perimeter of the block, the system of parking lots and car driveways must also be analyzed.

The array of spontaneously established paths and passages is, to some extent, the pedestrians' improvised attempt to organize the poorly structured space of the block. These paths will determine the form and function of the yardstreet. The future network of new connections is formed by the articulation and identification of these routes.



- M · subway station
- A · bus stops

Fig. 7:

Thawing method illustrated by the example of Blocks 93 and 94 of the Tekstilshchiki district in Moscow
stage 2: identifying the most active pedestrian routes in the block

Thawing method

Stages:

3. Identification of visual communications

The most and least visible areas within the district must be identified. It is important to analyze the orientation of the entrances of residential buildings; the existence, nature and potential of yards and their location relative to the building entrances. A major role is played by the presence and nature of fences and other visual obstacles.

Constructing and analyzing izovists helps in the work with the navigation system in the block: the data on the width of the field of view and its visual quality are necessary for creating the storyline of the new space.

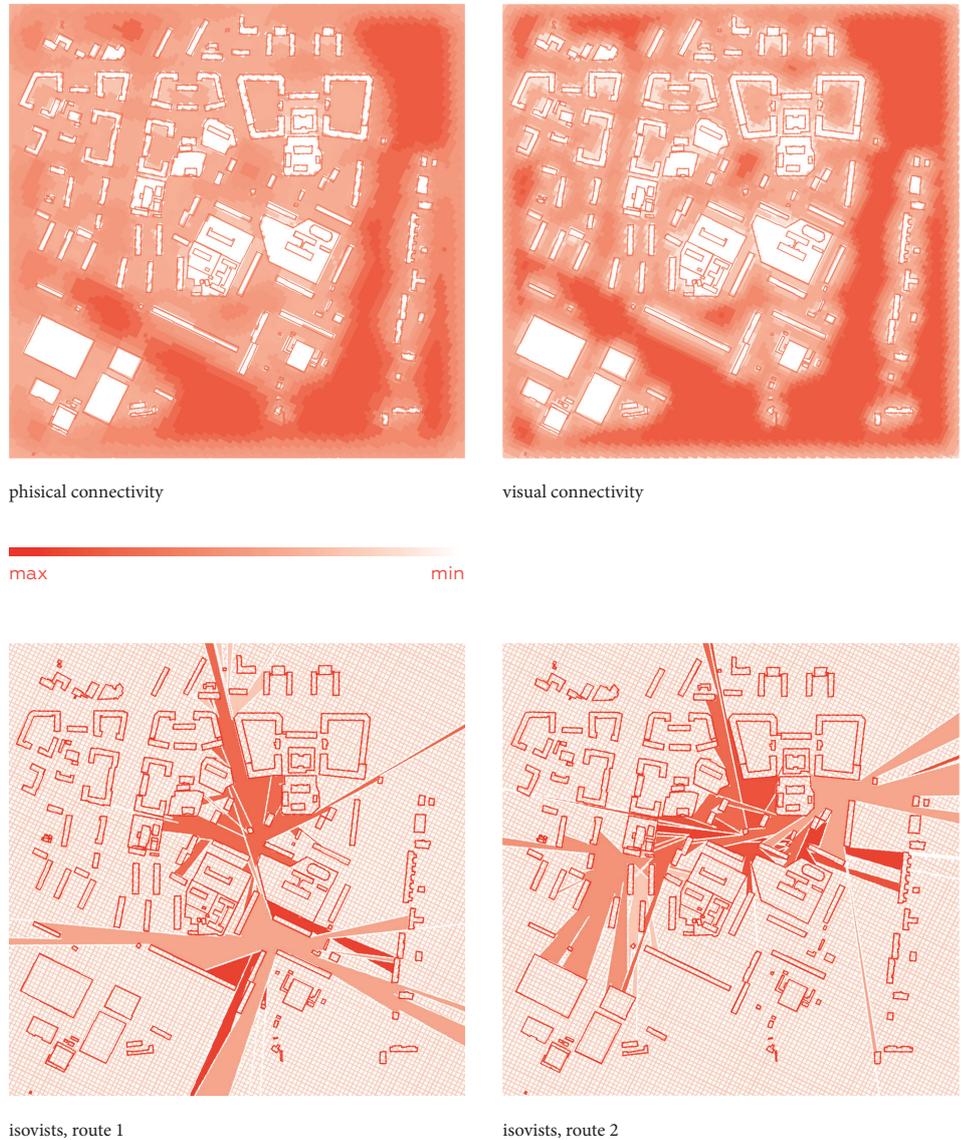


Fig. 8: Thawing method illustrated by the example of Blocks 93 and 94 of the Tekstilshchiki district in Moscow
stage 3: visual analysis of the territory of the districts: connectivity of site areas

4. Sociological research

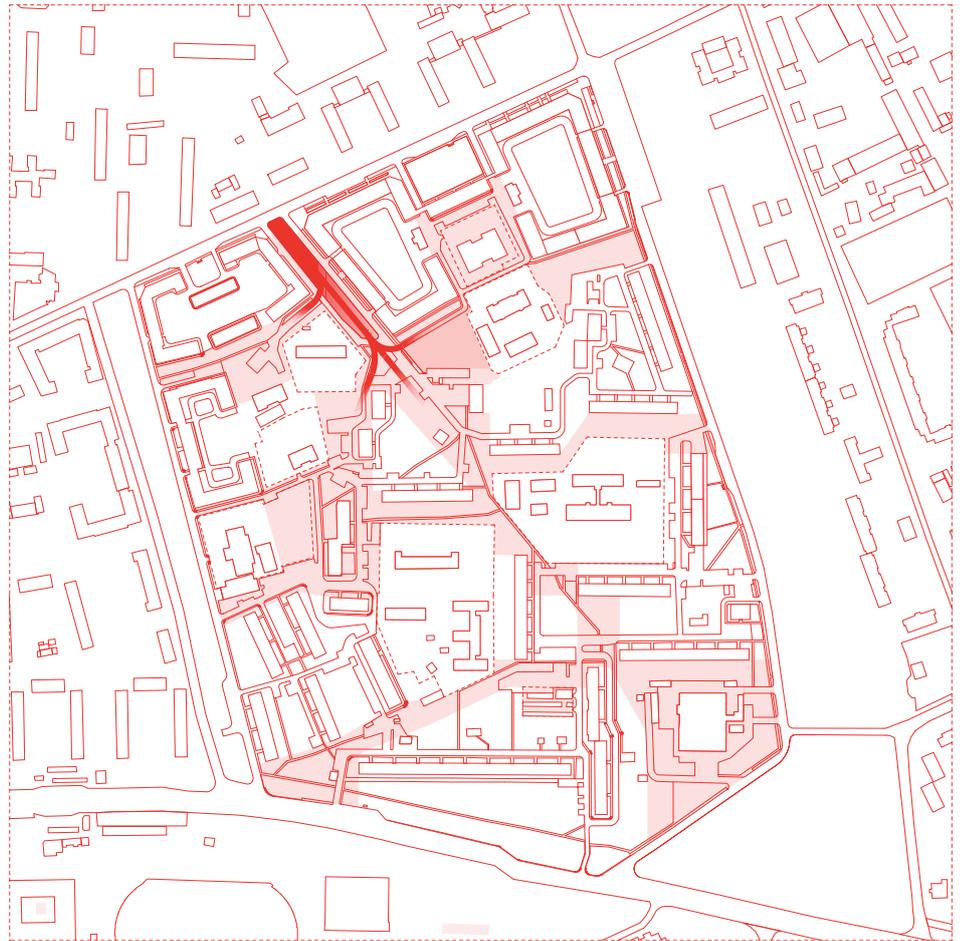
The size and composition of the population of the hyperblock and the specifics of how its territory is used by different citizens groups must be analyzed. In the course of work on the project, constant communication with the residents of the block is essential; surveys and work with focus groups must be carried out, monitoring and taking into account the reaction of the locals to the proposals of the project.

5. Definition of the project area

Thawing method

The yardstreet should occupy undeveloped plots belonging to no one along the routes identified at the previous stage of the method; it is thus necessary to analyze the ownership structure of the land in the block and identify “free” land where the yardstreet can be created.

Stages:



0

1 KM

- · old boulevard
(a piece of Perspective Plan of Development of Moscow 1957; was not completed
URL: <http://retromap.ru/m.php#l=0519571&r=0020090&z=16&y=55.712800&x=37.743106>)
- · small local park
- · possible project area

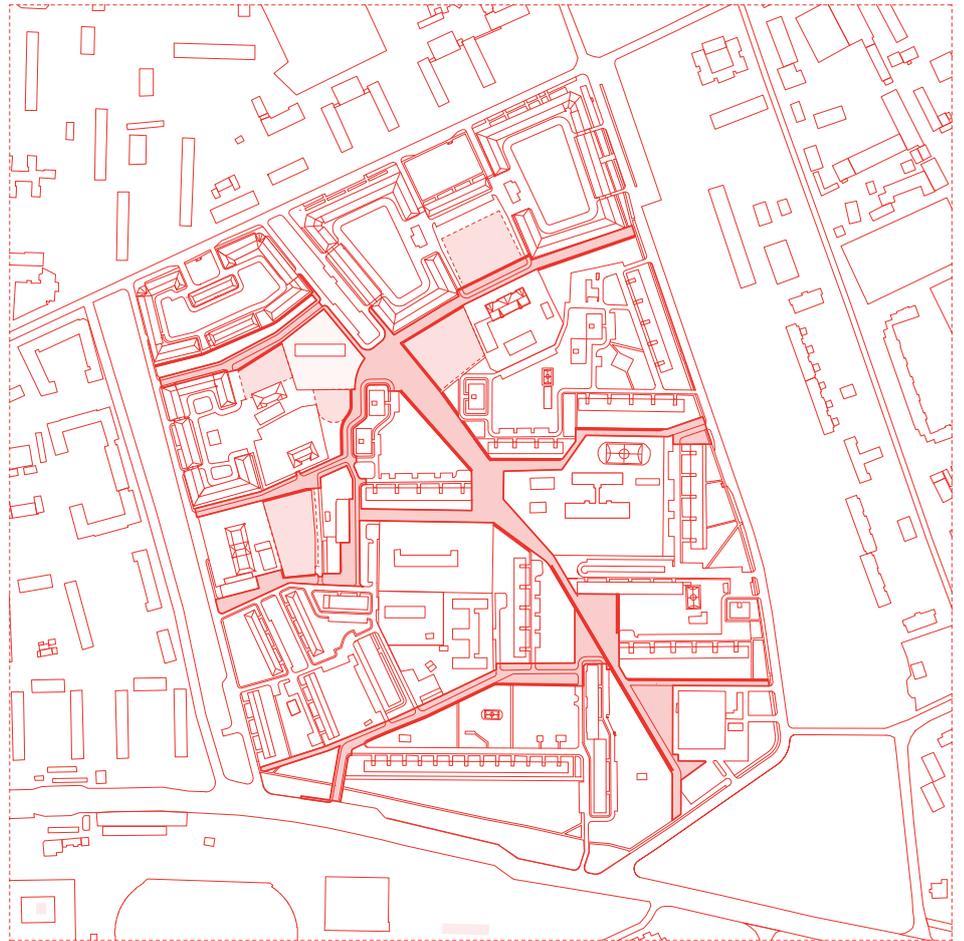
Fig. 9:
Thawing method illustrated by the example of Blocks 93 and 94 of the Tekstilshchiki district in Moscow
stage 5: definition of the territory to be developed

6. Programming

Thawing method

Stages:

The spatial and functional zoning of the yardstreet space must be determined: it includes mapping the most active and the quietest areas; the location of the main squares; the amount and purpose of the function units (pavilions, gardens, etc.) and their interconnection.



0

1 KM

- · lines of recreation of the street front
- · the most active areas
- · the quietest areas ("secret gardens")

Fig. 10:

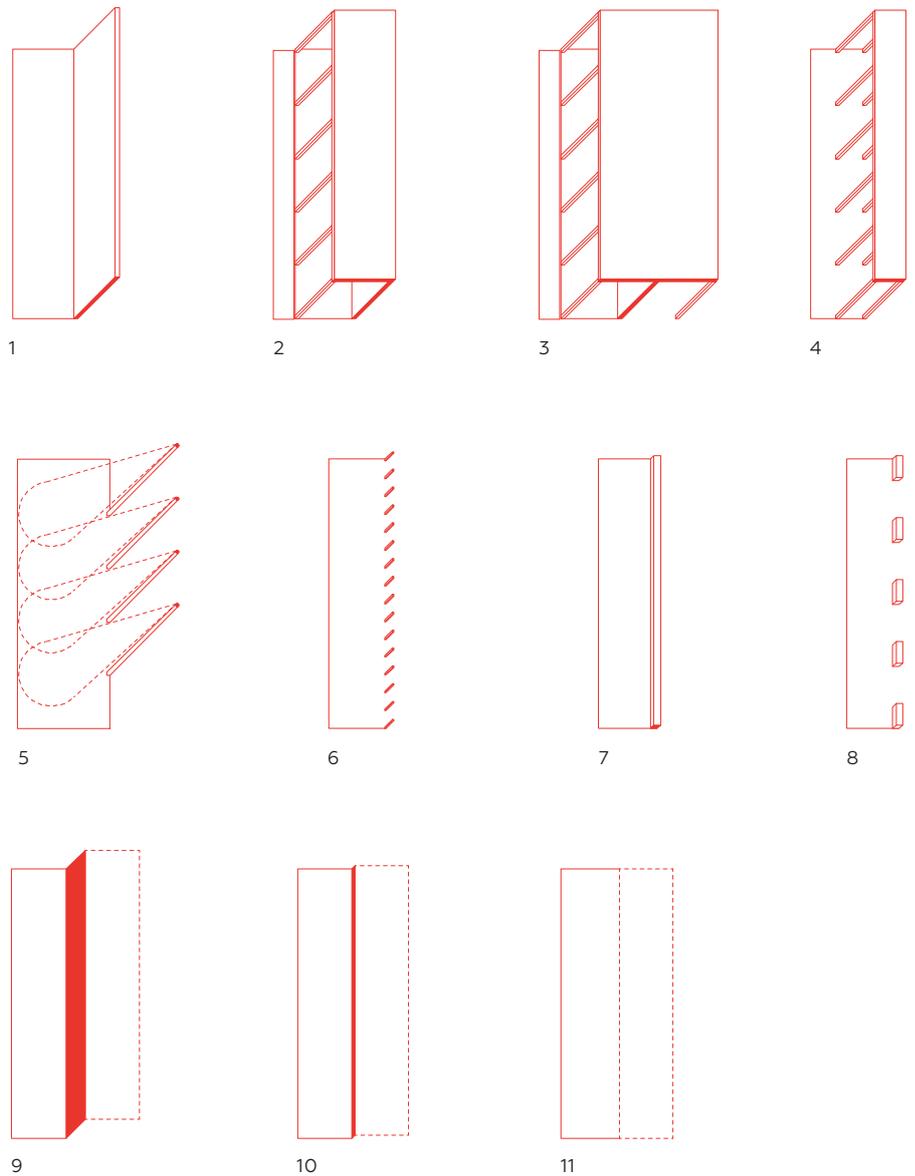
Thawing method illustrated by the example of Blocks 93 and 94 of the Tekstilshchiki district in Moscow
stage 6: programming; zoning the yardstreet

7. Setting boundaries

Thawing method

Stages:

The space of the yardstreet must also be structured as a whole: by determining the boundaries between spaces of different types and purposes, identifying their nature and permeability, and indicating the lines of the recreation of the street front and its configuration.



- 1. wall
- 2. pavilion
- 3. double-faced pavilion
- 4. gallery
- 5. lampposts
- 6. parapet
- 7. solid continuous bench
- 8. row of benches
- 9. height difference
- 10. step / curb
- 11. paving difference

Fig. 11: Thawing method illustrated by the example of Blocks 93 and 94 of the Tekstilshchiki district in Moscow
stage 7: quality assessment of the boundaries of the newly formed spaces

8. Design

A visual language and common design code principles must be developed for the newly formed spaces. This step involves the development of different paving options; selection of materials and work on their tactile qualities; the development of common navigation principles and different types of street lighting; the design of pavilions, street furniture, and other elements of the yardstreet.

Conclusion. Context



Fig. 12:

Project of the Sovetskaya Square–Pushkinskaya Square pedestrian zone, master plan

Authors: I.R. Galimova, O.E. Ryzhaev, O.V. Kozlov

Conclusion. Context

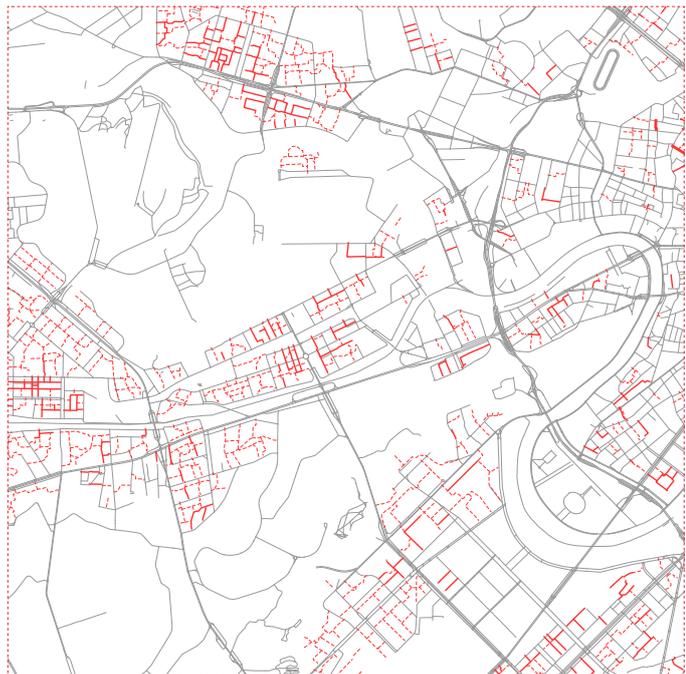
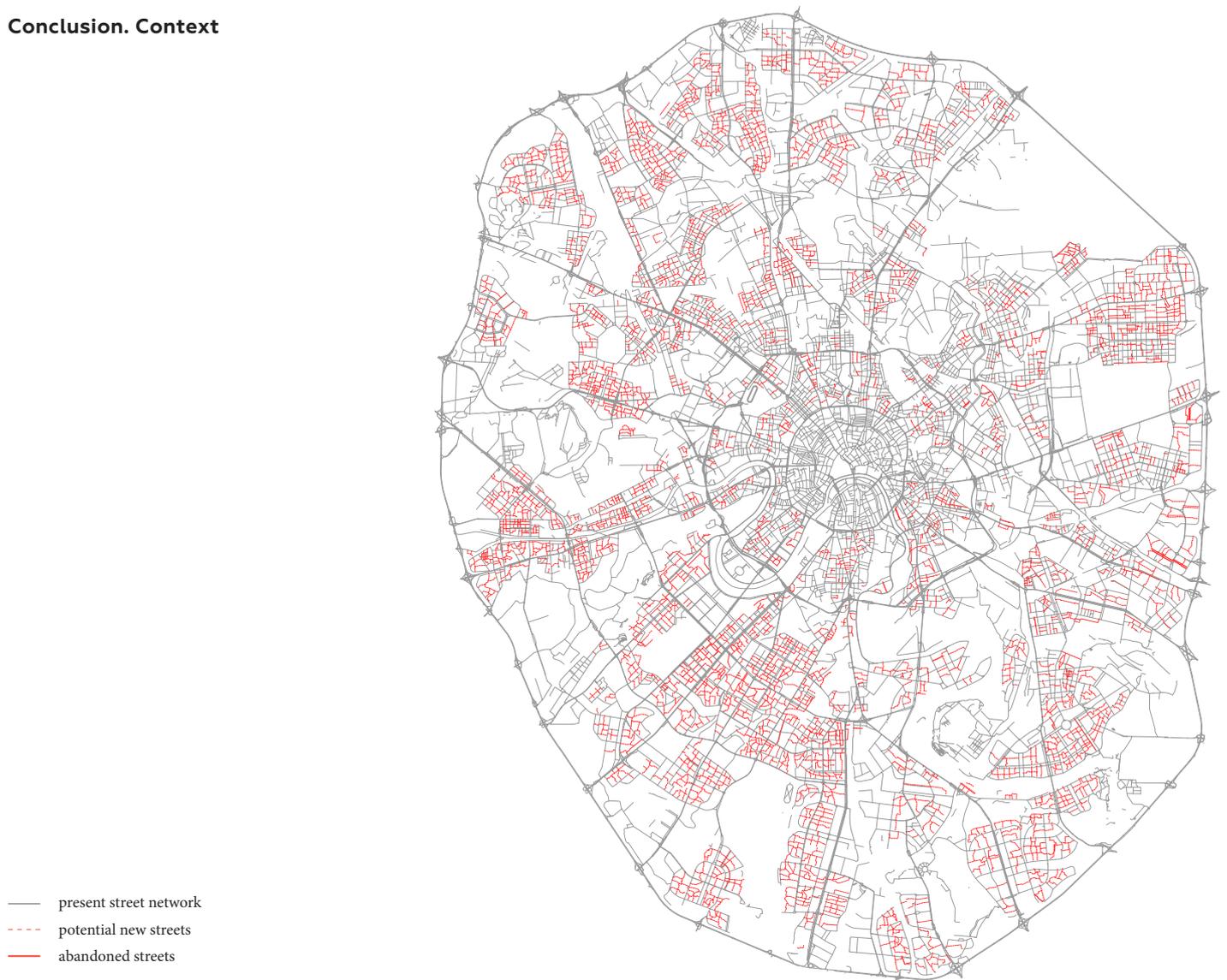
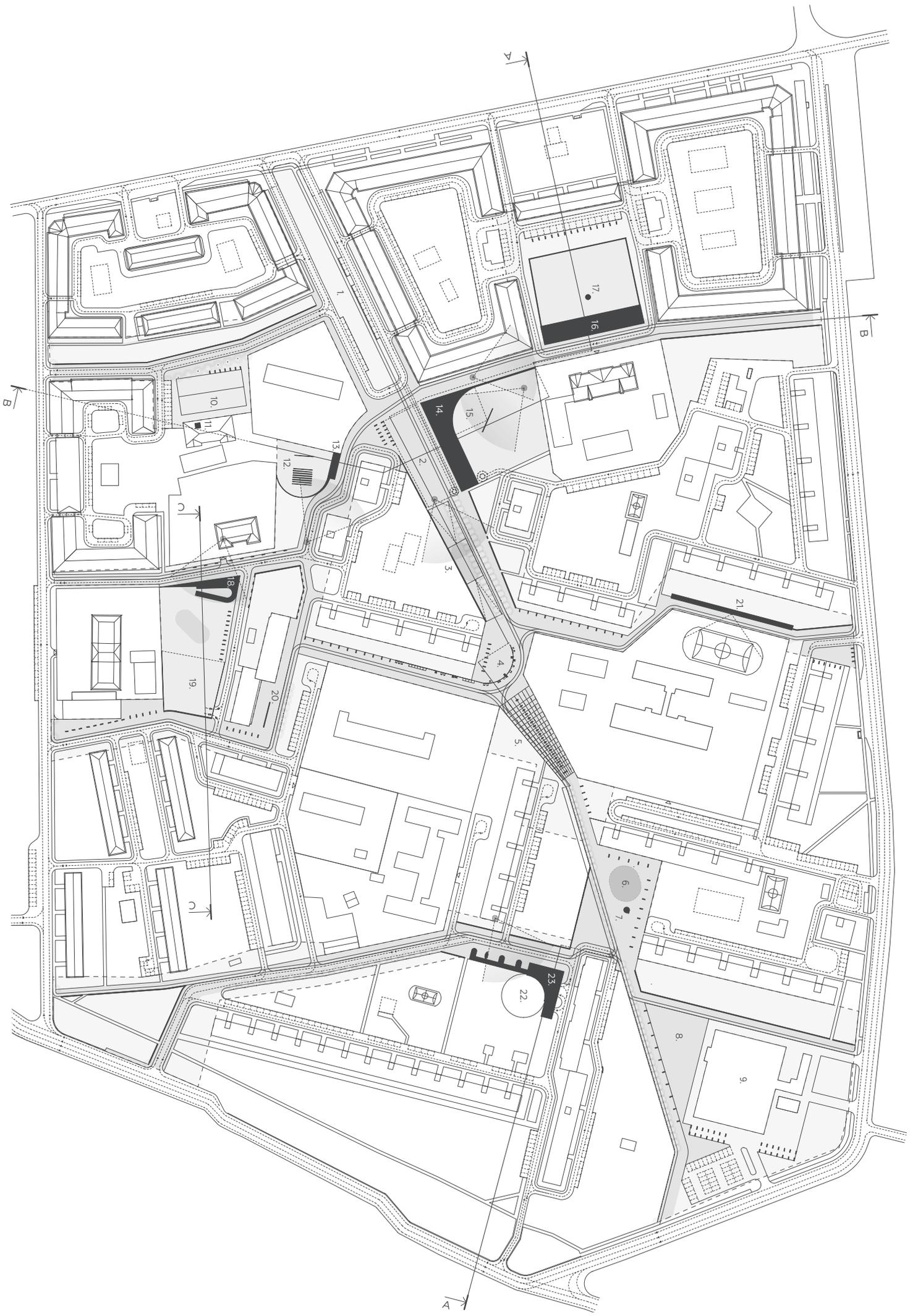


Fig. 13:
Yardstreets of Moscow: map of the alternative street network
(the work on the map steel continues)

YARDSTREET

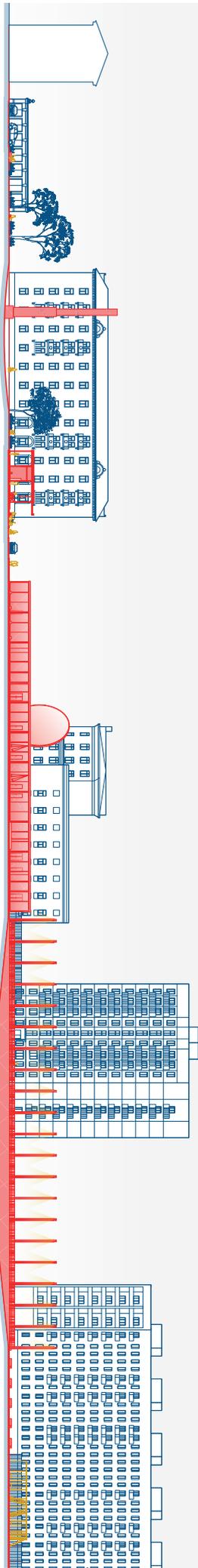
project images



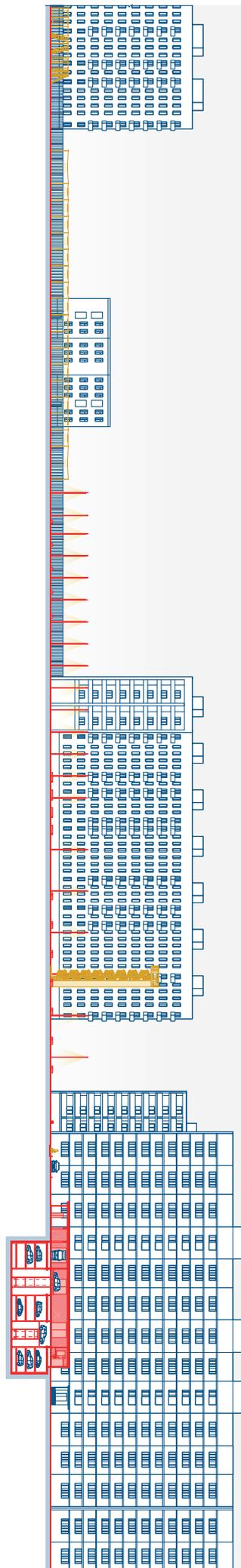


Elements:

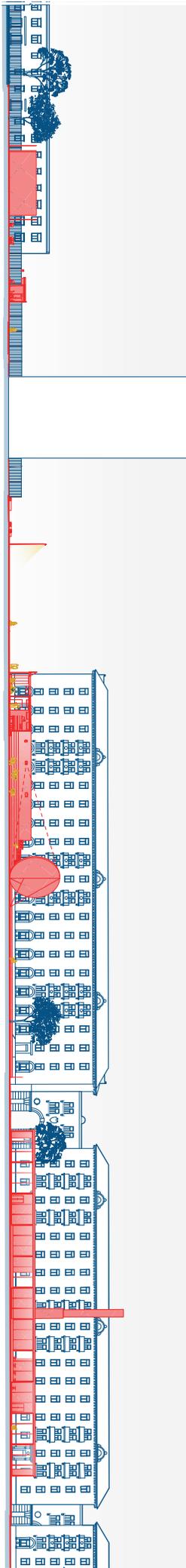
1. old boulevard (1957)
2. new central market square
3. amphitheatre
4. square with a linear playground
5. "Room" element
6. square with a pond
7. "Observation tower" element
8. square in front of the shopping centre
9. present shopping centre
10. small amphitheatre
11. the old boiler house chimney
12. secret garden with the seats of the "Cinema" pavilion
13. "Cinema" pavilion
14. "Household" pavilion
15. secret garden with a mirror, a tribune and a screen
16. "Sport" pavilion
17. secret garden with the old boiler house chimney
18. "Ramp" pavilion
19. "Slope" pavilion with automatic underground parking
20. square in front of the supermarket
21. tribune
22. animal playground
23. "Products" pavilion with automatic underground parking



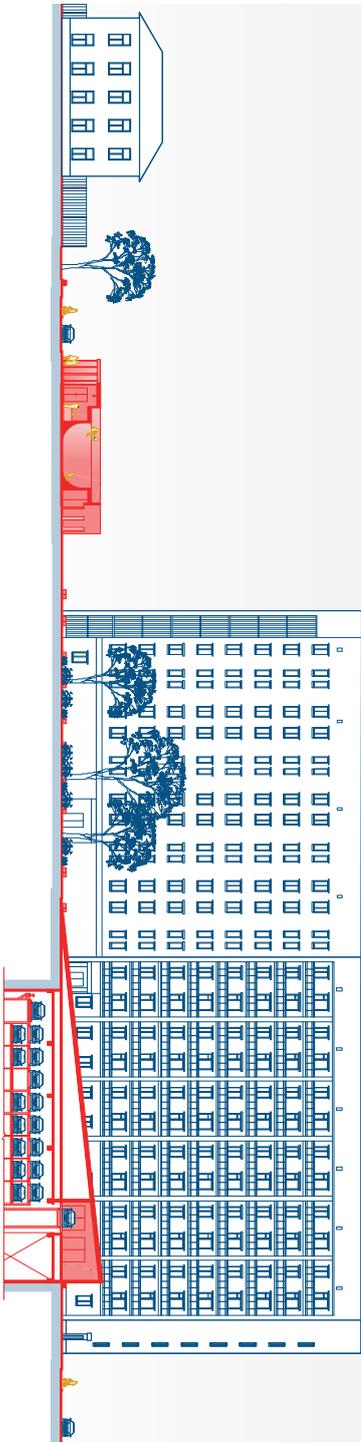
section A-A



section A-A



section B-B

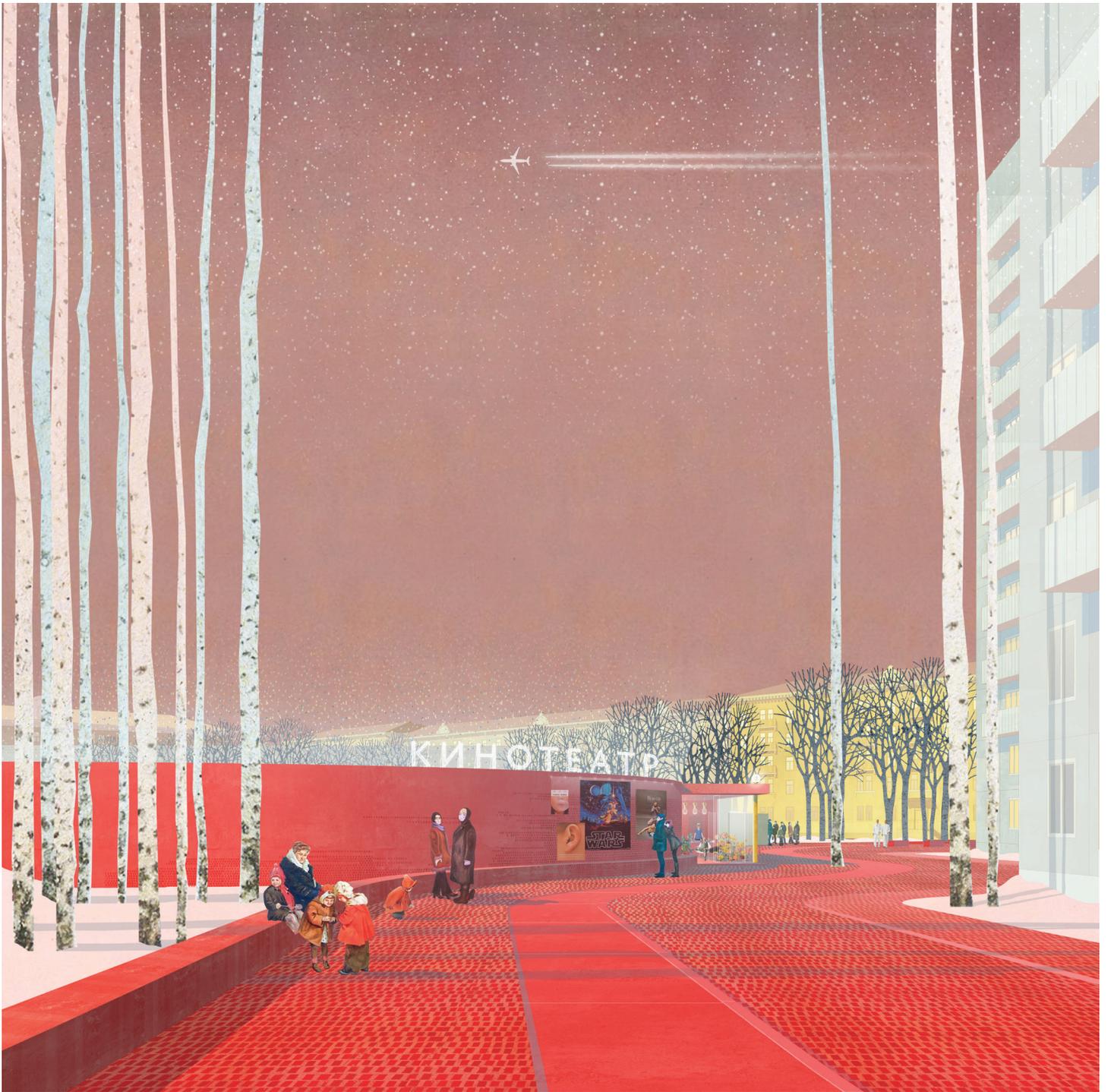


section C-C

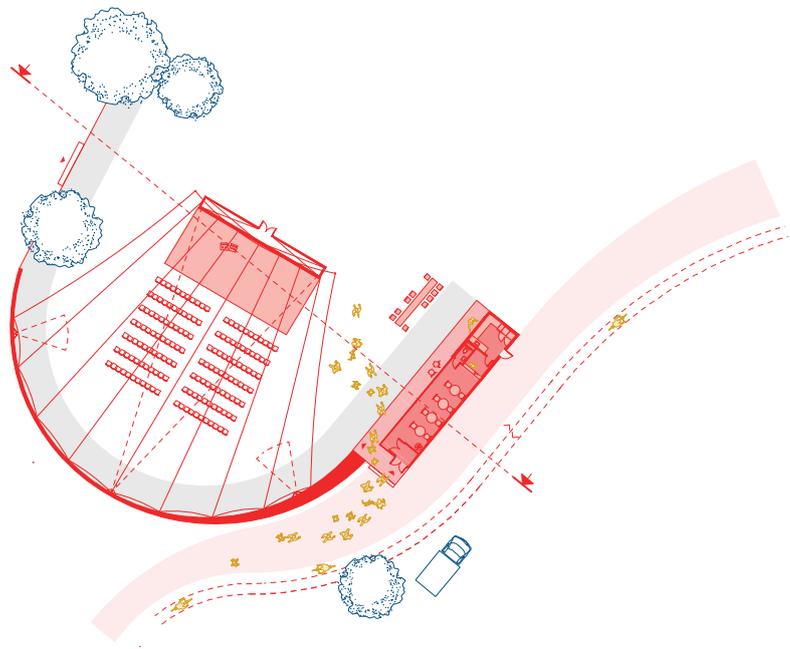


Amphitheatre

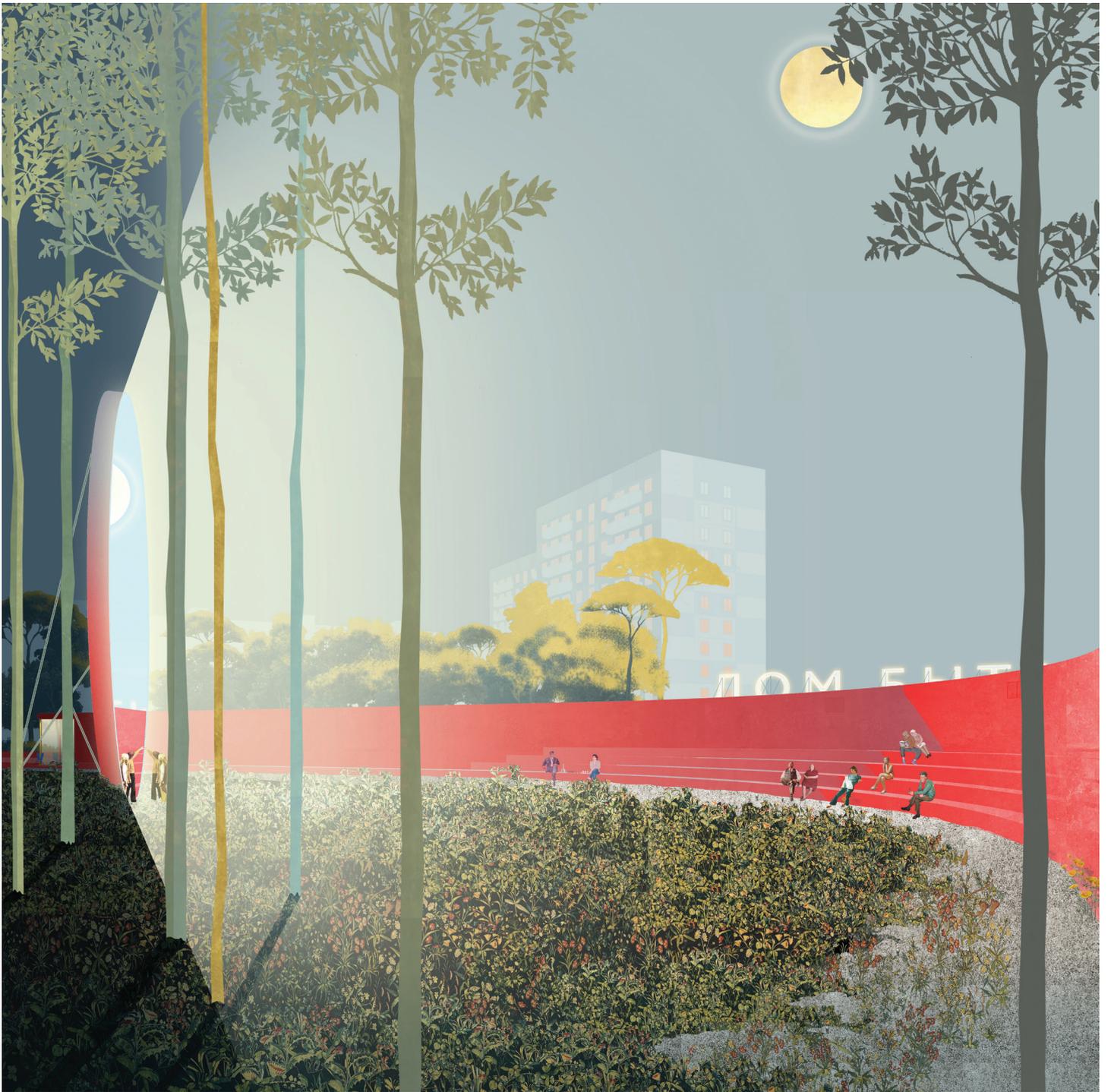
[3]



"Cinema" pavilion
[12, 13]



"Cinema" pavilion
[12, 13]

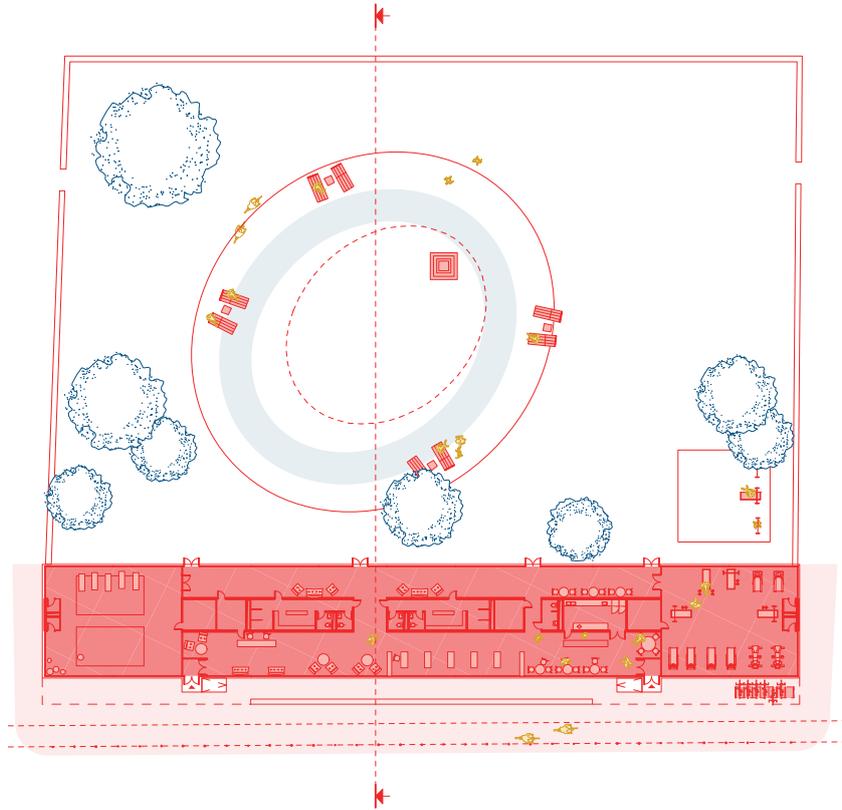


"Household" pavilion

[14, 15]

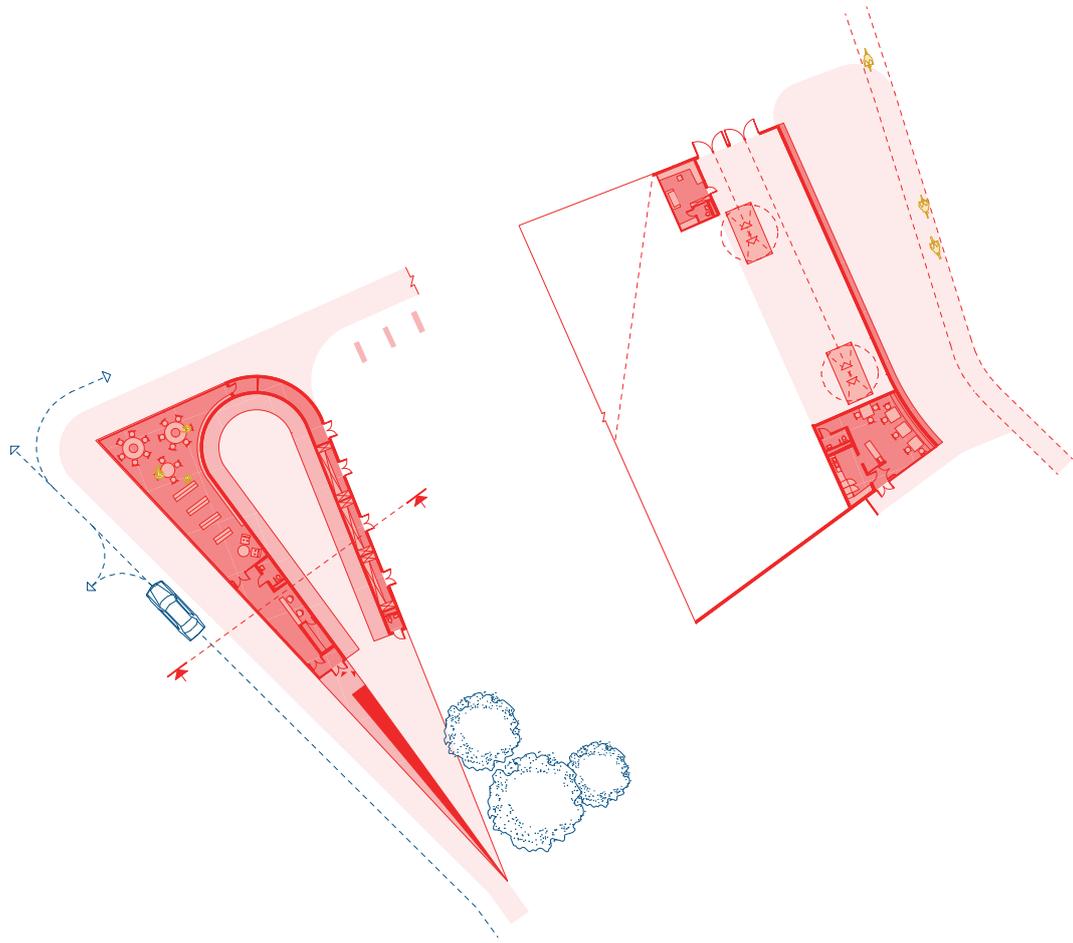


"Sport" pavilion
[16]





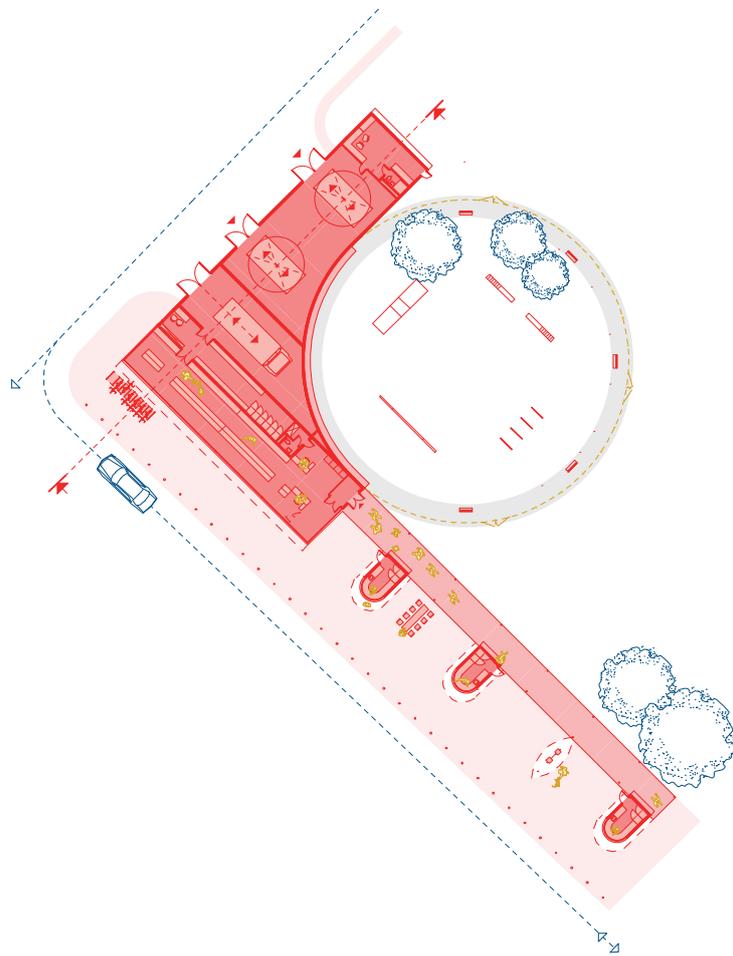
"Ramp" pavilion
[18, 19]



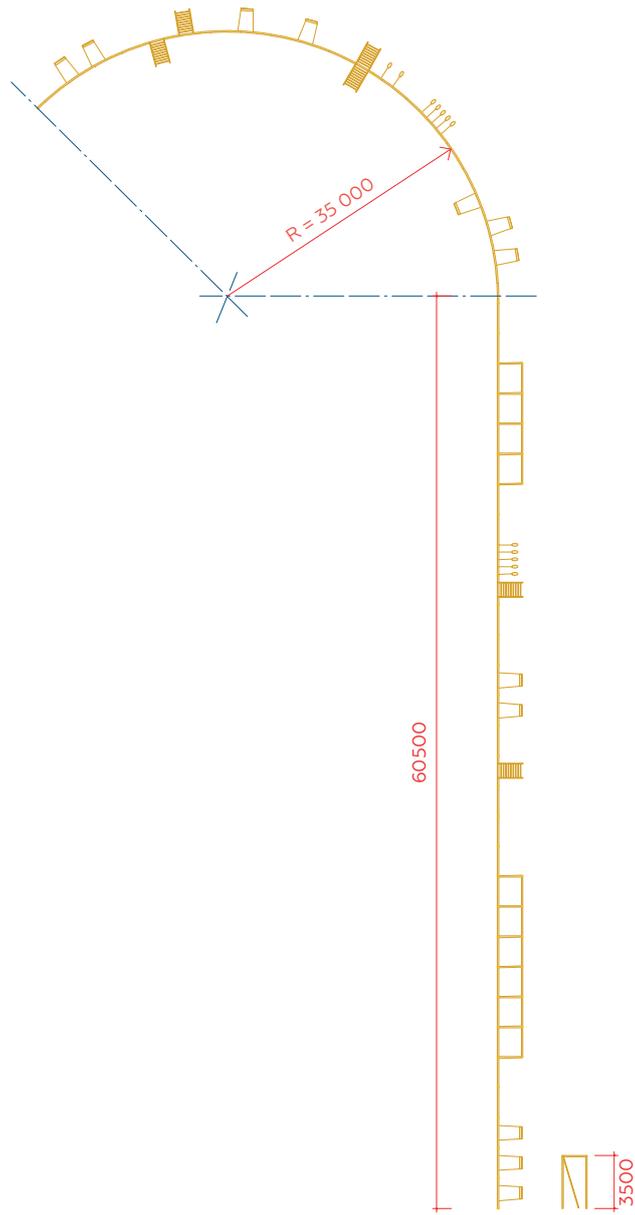
"Ramp" pavilion
[18, 19]

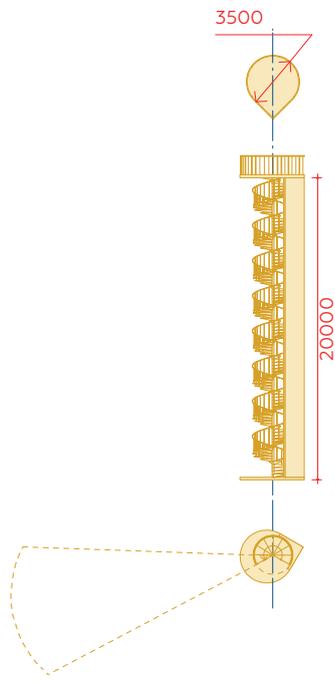


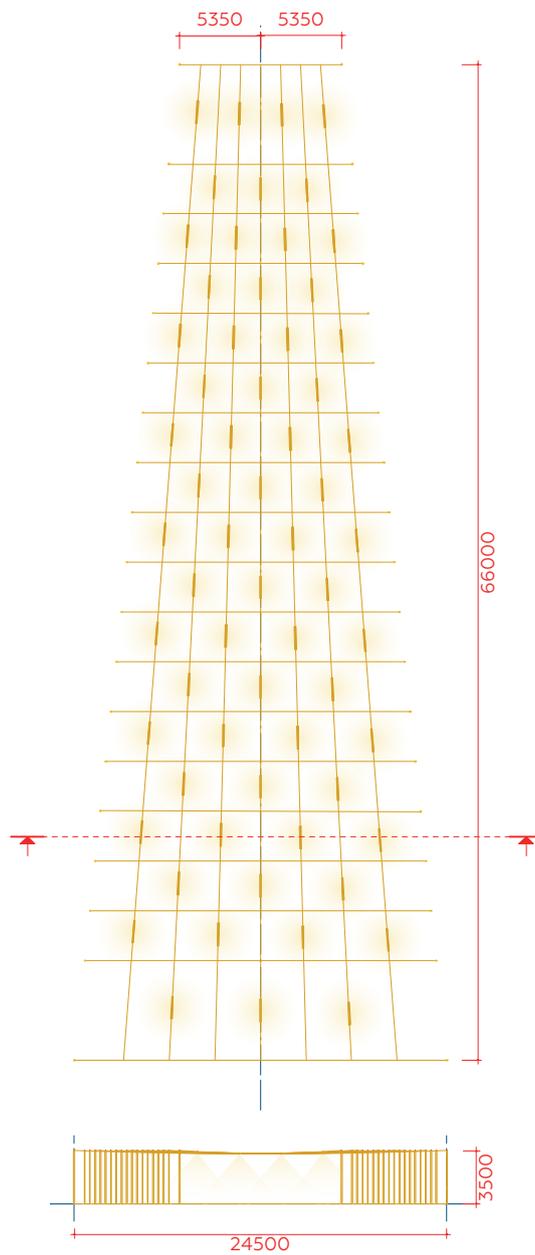
"Products" pavilion
[22, 23]



"Products" pavilion
[22, 23]

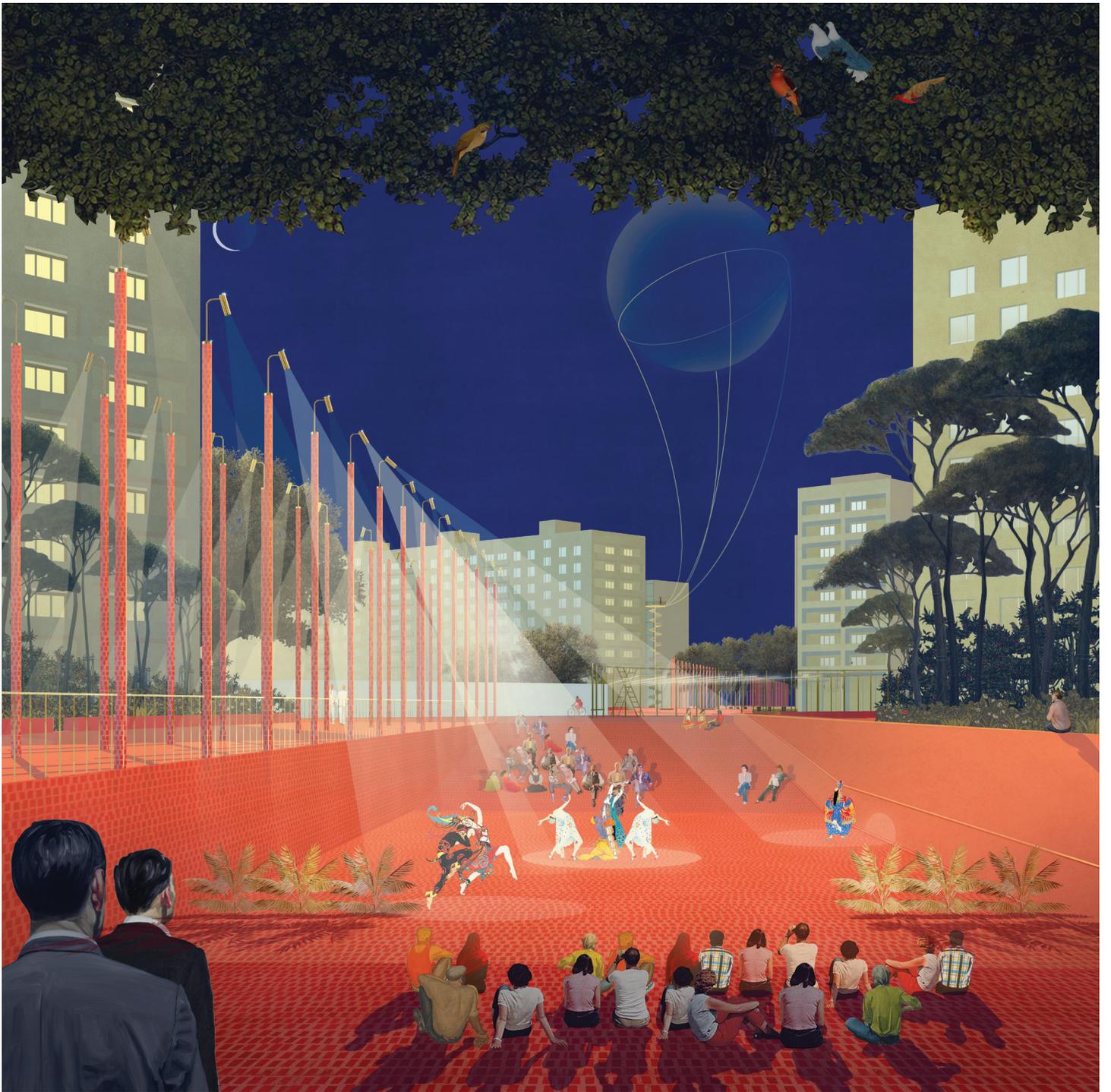






"Room" element

[5]



Amphitheatre

[3]

Alena Shlyakhovaya, MA
Architect and researcher, Meganom

shlyakhovayaa@gmail.com
<http://meganom.moscow/> mail@project-meganom.ru