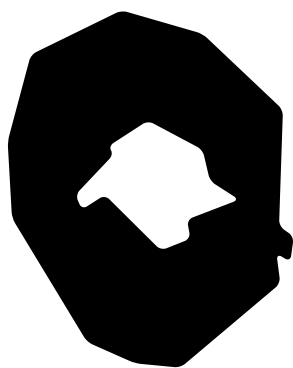


Archaeology of the Periphery









TO NAT CHAMAEVA

ARCHAEOLOGY
OF THE
PERIPHERY

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M O S C O W
U R B A N F O R U M

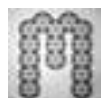
AN ANNUAL INTERNATIONAL CONFERENCE IN THE FIELD OF URBAN PLANNING, ARCHITECTURE, ECONOMICS AND STRATEGIC CITY PLANNING, ORGANIZED BY THE MOSCOW CITY GOVERNMENT SINCE 2011. FORUM HAS GAINED A REPUTATION OF A SUCCESSFUL PLATFORM FOR GENERATING EXCHANGES BETWEEN WORLD'S LEADING EXPERTS ON URBANISM, CITY MANAGEMENT AND BUSINESS DEVELOPMENT. THE FORUM PROVIDES AN OPPORTUNITY TO DISCUSS CHALLENGES AND OPPORTUNITIES THAT ARE CREATED IN THE MODERN MEGAPOLISES, TO CONSIDER FUTURE VISIONS AND TRAJECTORIES FOR THE DEVELOPMENT, BASED NOT ONLY ON EFFECTIVE MANAGEMENT, ECONOMICS AND TOP-DOWN PLANNING, BUT ALSO ON THE PERSPECTIVE OF A CITY DWELLER. MULTIDISCIPLINARY RESEARCH TEAM 'ARCHAEOLOGY OF THE PERIPHERY' IS A PILOT PROJECT OF THE FORUM, WHICH OPENS A SERIES OF WORKS FOCUSED ON THE URBAN ENVIRONMENT



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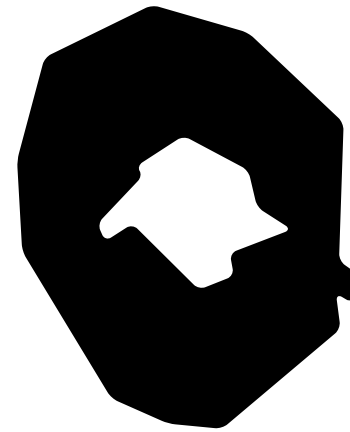
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Archaeology of the Periphery



The rapid growth of megapolises in the 20th century has led to imbalances in the development of urban spaces. Only half a century ago, fueled by transport revolution and industrial production, the cities began to experience rapid growth and densification around the historic city cores. Today, dense urban development takes up to 95% of the total urbanized area.

The growth of urban agglomerations fueled by the influx of people, was quickly followed by the emergence of **the cult of centre**; where the city center becomes the most attractive and activated. This has led to an even greater divide in the quality of life between central and the outer districts. A big percentage of the urbanized territory, backed by the differentiated real estate prices, became and until present, remains a periphery. Despite the attempts to reduce the gap, the periphery can never keep up with the centre in its **development**, like Achilles and the Tortoise in Zeno's paradoxes.

Multiculturalism of megacities takes on different forms when applied to the formation of the urban peripheries. The American suburbia, favelas of Latin America, Indian slums, suburbs of Western Europe and post-socialist cities of capitalist Asia bear little resemblance. Since their origins are fundamentally

different, their side-to-side comparison is not always appropriate. Nevertheless, they share common characteristics, such as the lack of resources, uniformity of fabric and monotony of the environment.

The focus on periphery is crucial for Moscow and Russian audience and stands out in the international context. Moscow is one of the best examples of concentric development. During the twentieth century its border gradually moved away from its historic core, adding new territories and creating an encircling hierarchy of spaces from city neighborhoods and suburbs to the district centres of adjacent areas. Super centralization of the radial structure of Moscow, the explosive growth in the twentieth century, the small size of the historic centre with its great significance for the city and the country – this is what makes it relevant and necessary to explore the potential of this development beyond the centre. It is important to mention, that for us development of a territory in no case equals new **construction**.

It is evident, that the "gravity" of the Moscow centre operates far outside the Moscow Ring Road and it is necessary to urgently adopt a common strategy for the development of the entire metropolitan area. This requires bringing together a variety of specialists,

processing large amounts of data and coordinating efforts in all the levels of government.

Although our research task is smaller in scale, it is no less important. We are focusing on the territory between the Third Ring Road and the Moscow Ring Road, an old Soviet Moscow with an embedded ideal model. This first zone of Moscow's periphery was completed in the 20th century and became a unique experiment to create the perfect social order, an ideal model for living. In order to uncover the imprint of the old model and reveal the latent potential of this spatial model, "archeology" becomes a useful instrument.

As the centre sets a certain quality of life and serves as a benchmark for the entire city, the high "gravitation" of the centre makes the signs of urban life invisible on the outskirts. Different optics are required in order to work with the non-central urban space. The tactic of "taking out" the centre and "sharpening the focus" on the peripheral territory will reveal what has been obscured and help identify the processes that take place, study potential, support or control the current forces at play.

The term "periphery," which is based on the opposition to a semantic centre is used in a wide range of scientific fields. The myriad of approaches underlines the ambiguity of the phenomenon and at the same time provides a base for an multidisciplinary research. This research was performed by experts in sociology (S), politics (P), architecture and urban planning (A), culture (C), economics (E) and big data (D). Methodology — **SPACED** — allows a broader view of the actual and potential intersections, going beyond the usual practice of urban planning.

ARCHAEOLOGY OF THE PERIPHERY - becomes the research method of revealing the latent potential, a search for imprints, hidden planning structures, objects of value and forces at play. The main purpose of this work is to attract attention: the largest area of Moscow comes out of the shadow. Previously underestimated territories become a topic of scrutiny

and debate; the space is reexamined and therefore becomes more valuable. Shaping the potential of centre and the periphery could increase the overall attractiveness and comfort level of the urban environment, in which the centripetal trends of development will be balanced by the centrifugal. To make this possible, it will be necessary to apply new approaches to management, find other methods of data analysis and develop a common strategy for the development of the urban fringe.

The significance of the focus on the centre (or a system of centres) in the discussion of the fringe has been shifting. The spatial hierarchy that values a territory upon its proximity to the core has been failing. The modern 'real' city takes over networks, creating a new language of opportunity. In these circumstances, the historic centre of the city, still endowed with symbolic and sacred meaning, starts operating in a fundamentally different way. It is natural to assume that on the site of the former periphery there might be a new urban culture appearing, including the one aimed at overcoming the cult of a centre. This is just the beginning of the work. The cult of the centre is replaced by the **cult of the periphery**.

Yury Grigoryan

MOSCOW



SINGAPORE



MOSCOW



LONDON



MOSCOW



SANTIAGO



MOSCOW



MEXICO



MOSCOW



LONDON



MOSCOW



CALCUTTA



MOSCOW



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BUENOS AIRES



MOSCOW



BERLIN



PAR — PERIPHERY AREA RATIO MAKES
IT POSSIBLE TO ASSESS THE SIZE
OF AN URBANIZED AREA OF A CITY
BEYOND ITS CENTRE



$PAR = S^{total} / S^{center}$

S^{total} is total urbanized area of the city
S^{center} is city centre area
This index was calculated for selected cities based on an open
source data, 2013.

There are several ways of distinguishing a city center. We have defined the territories described in the most popular tourist maps of the city, assuming that they include historical core, shopping, leisure and business activity, and frequently major official buildings. We were also taking into the account an administrative division of the city, which often shows the official fixed centers of the city.

Analyzing satellite imagery, we defined the whole urbanized area as of 2013. It shows the imprint of the real city beyond administrative border.

3.8	SINGAPORE	13.15	—	50.2
7.1	KUWAIT	10	—	71.2
8.9	MUMBAI	6.1	—	54.6
16.6	JAKARTA	4	—	66.2
19.6	MOSCOW	6.6	—	129.3
20.7	LONDON	11.01	—	230.3
21.2	BEIJING	8.7	—	184.1
25.9	MADRID	3.1	—	80.2
33.5	PARIS	8.5	—	284.5
34.1	BERLIN	3.95	—	134.7
42.0	BIG MOSCOW	6.6	—	277*
43.2	LAGOS	2.1	—	90.7
45	MEXICO CITY	3.3	—	148.5
53.9	ISTANBUL	2.5	—	134.7
55.3	CAIRO	3	—	165.8
59	TOKYO	4.349	—	256.4
59.9	TEL AVIV	0.8	—	47.9
60.3	SEOUL	0.996	—	60.1
75.5	BUENOS-AIRES	3.5	—	264.2
78.3	SIDNEY	2.6	—	203.7
117.5	SAO PAULO	2.7	—	317.3
139.9	SHANGHAI	2.5	—	349.7
380.9	CHICAGO	1.8	—	685.6
2694	JOHANNESBURG	0.1	—	269.4
777	BANGKOK	0.3	—	233.1
9842.2	LOS ANGELES	0.064	—	629.9

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TOKYO

Diversifying the Metropolis — Yasushi Aoyama

Life on the Edge

Justin McGuirk

“Our modern city is a divided city,” wrote Henri Lefebvre in 1980. With this maxim, Lefebvre crystallised the idea – one that he had done much to shape – that cities were no longer integral things but riven by a dualist logic of centre and periphery. This was not merely a spatial divide, of course, but a social one. Where the centre was supposedly a bastion of commerce, decision-making and wealth, the periphery was a sprawling hinterland of industry and proletarian housing (or, at least, this is how things looked from his home in Paris). A decade earlier, when he wrote *The Urban Revolution*, it had seemed to Lefebvre that this social rift was potentially revolutionary. “Can such a strategy assume that the countryside will invade the city, that peasant guerrillas will lead the assault on urban centres?” Well, not quite. Instead, he concluded, what this dualism had engendered was a new feudal relationship between “a dominating centre” and “a dominated periphery”. In other words the city itself, and not industry, was now the crucible of social relations.

That view owes much to a particularly European conception of the city. The very notion of the centre is a historical fetish. It is heavily imbued with the aura of the Greek polis, the heart of the body politic, and with the idea of the medieval walled city as a self-contained citadel. The centre conforms to an ideal of the city, one bedecked with squares and monuments. And these are atavistic images that we relinquish with great reluctance.

The periphery, by contrast, is a relatively recent phenomenon. Only since the industrial revolution have cities spawned the factory zones and dormitory suburbs that troubled Lefebvre’s imagination. And such images are loaded with prejudice. Where “periphery” would seem to identify a geographical phenomenon, it is just as much, especially in Europe, a social threshold. Periphery means immigration (ethnic tension) and poverty (crime). The rings of tower blocks circling Paris and Milan have played the role of ghettos in the urban imaginary of those cities.

Those same towers feed another image of the suburbs as repetitious landscapes, monocultures both architecturally and socially. Often cut off by orbital roads, they are considered transient zones that one passes through as you follow the signs for centre ville. These products of standardised modernism were supposed to be the cities of the future, and their subsequent neglect and blighting lends them an air of failure. Their monotony and

refusal to adhere to the tight-knit streetscape of the ideal city leads us to castigate them as “non-places” – like the airports and shopping malls that Marc Augé coined that term to define, they suffer from too much space. And yet, even before many of these clichés were fully grown, there was revisionism afoot. For the artist Robert Smithson, the periphery was alive with weird potential. In 1967, his photo-essay *A tour of the monuments of Passaic* documented the very monuments that were supposed to be missing from the industrial hinterlands of New Jersey. It’s true, these car parks and water pipes were not “the ‘big events’ of history”, but that was the whole appeal – there was “no past, just what passes for a future”.

The post-industrial cities of the West have long-since discovered and exploited that industrial legacy. Warehouse loft living isn’t just for artists anymore, even the bankers have got in on that act. But the romantic monumentalism of Smithson’s portrait of Passaic wasn’t the only potential of the periphery. In America at that time, the suburbs were the boomtowns while the city centres were being abandoned to the poor. A paragon of so-called “white flight”, Los Angeles epitomised that trend. After the Watts riots in 1965, a million and a half residents left the fringes of downtown for the suburbs of Greater Los Angeles. And that was the story across the United States, with car-loving suburban sprawl being touted as the new urban ideal, while the crime-ridden inner cities were left to their own devices. This was the case in London, too. For several decades, the UK’s capital subscribed to the model of the hollow core, or the hole in the doughnut. And yet in the 1990s it actively reversed that worrisome trend. It was called an “urban renaissance”, and the principles of high density, social diversity and mobility became mantras for cities across the world. The compact city was all of a sudden the sustainable city, the productive city and, in theory, the equitable city.

Such are the swings and roundabouts of urban attitudes from the mid to the late 20th century. The centre is taken for granted then vilified and then idealised once again. The periphery is by turns idealised, ghettoised and romanticised. But just as the fortunes of centres and peripheries have risen and fallen, their relationship is also undergoing dramatic changes. The very centre-periphery dialectic is on the wane. As the urbanist Edward Soja has written, “the old socio-spatial dualism of urbanism and suburbanism as separate and distinct ways of life has begun to disappear.”

As we shall see, there are numerous reasons for that. But one above all will define the changing nature of that relationship, and that is that peripheries are the zones of growth. As we know, most urban growth this century will take place in the cities of the developing world. And, outside of China, most urbanisation is of the informal variety. Eighty-five per cent of all housing is built illegally by squatters. By 2030 it is estimated that two billion people will be living in slums, mostly on urban peripheries. In other words, squatters are building the cities of tomorrow.

Even now, cities such as Caracas can claim to be 60 per cent informal. And while this has manifested itself as a city distinctly segregated between the formal centre and the informal periphery, that is not always the case. Rio for instance has 1,000 favelas, some of them in the city centre – the margins are not always on the periphery. Indeed, the margins are increasingly flexible, shifting depending on the viewer's perspective. As the Mumbai-based urban anthropologists URBZ observed in Dharavi, to the slum-dwellers themselves the slum is always somewhere else. So where, we might ask, does the periphery start?

The nature of mass urbanisation in the global south is one of the great social and logistical challenges of the century. This is especially true in Africa, the first continent to experience mass urbanisation without industrialisation. One of the consequences will be the reconception of the city not as a planned entity but as a largely spontaneous one. In Latin America, which experienced mass urbanisation long before China or Africa, favelas and barrios are being recognised not as some kind of pre-formal city that is awaiting formalisation, but as bone fide pieces of the city in their own right – and that will have enormous consequences for the nature of the urban periphery.

With the compact city as our only sustainable option for urbanisation, it has become orthodoxy that cities cannot continue to sprawl in the manner that they did in the 20th century. And yet they must grow. The implications of that will be the reimagining of peripheries as sites of enormous potential. And as we absorb that challenge, the old certainties of centre and periphery will inevitably dissolve.

Enter suburbia

Arguably, London invented the concept of the urban periphery, or at least one version of it. The nation that launched the industrial revolution would, naturally, beget the first megacity. At the turn of the 20th century London was the largest metropolis in the world, and it was a suburban city. The vast majority of the urban fabric was made up of two- and three-storey terrace houses stretching, from the centre, for 30km in every direction. London invented suburbia, and with it urban sprawl. But London's periphery is not subject to the same social segregation that defined so many cities in continental Europe. These suburbs are largely zones of middle-class comfort.

Two factors above all make London an interesting case study. The first is that precisely because of its ungainly size, it has always operated as a polycentric city. It does of course have a centre, the former heart of the empire at Trafalgar Square, but it doesn't necessarily feature prominently in the day-to-day lives of the city's 8 million residents. Instead, the periphery operates as a cluster of incorporated villages, each with its own high street or market as a commercial focal point. And this notion of polycentrism will be crucial to urban development in the 21st century.

Secondly, London has a clearly defined border. Implemented in 1944 as part of the Greater London Plan, the Green Belt remains off limits to new development, a natural straight jacket preventing the urban patient from munching all the daisies. This was a bold strategy, and one that few cities have dared to adopt. Tellingly, Medellin, in Colombia, is planning to implement a Green Belt, but it is considering doing so at the same time as creating a ring of transport infrastructure around the city that will only encourage its comunas, or informal settlements, to grow. Those two policies will counteract each other, making the no-build zone impossible to police. London was lucky, in that respect, that the Green Belt was adopted after the city's hormonal growth spurt.

By the time the Green Belt was established, London was already starting to shrink. What was a population of 8.5 million in the 1940s would dwindle slowly but steadily until by the mid 1980s it was 6.7 million. Much as in America, this was a consequence of car culture and political neglect of the inner city. However, from the 1990s London was to reverse that trend in dramatic fashion. The centre was revived, particularly under the proposals of the Urban Task Force, chaired by Richard Rogers, which advocated higher density and more investment in public transport. Under the city's first elected mayor, Ken Livingstone, "urban regeneration" became the watchword, and the city adopted radical policies such as a congestion charge for cars entering the city centre. These ideas represented a more truly urban vision than the quaint New Urbanism that had been advocating a return to the city in the US, and they were to have international influence.

London has been growing at pace over the last two decades, recovering the population size of its heyday. Most of this growth is now thanks to international immigration – 95% of immigrants to the capital were born outside the UK. London is now a polyglot metropolis at the heart of a global economy. And with that appeal comes new challenges for the periphery. With land in the city centre such a haven for international investment, the suburbs are coming under new strain. Traditionally, London has avoided the ghettoisation of the periphery, with the poor fairly evenly distributed across the city. But with a severe housing shortage and stratospheric prices even in the inner suburbs, the poor are increasingly being forced to the edges and even out of the city altogether. This is the great challenge London has to face in the coming decade.

The plan thus far has been to expand into the former industrial hinterlands of the east. The Olympics successfully created a new quarter in the brownfield sites around Stratford. But it is nowhere near enough, and even there the opportunity to start replacing the social housing stock that is being torn down across the city was missed. The next great hope is the Thames Gateway, the estuary scrublands of the city's eastern fringe. It is earmarked for 200,000 homes, but this is an idea that never seems to bear much fruit. Perhaps, with the arrival of Crossrail, the express rail line across the city, in 2018 that promise will finally be delivered. Indeed Crossrail itself may prove a minor revolution to life on the periphery. Passengers will be able to cross from the eastern fringe, in Essex, to the western perimeter at Heathrow in just 20 minutes. That kind of edge-to-edge potential is new to this city.

Marginal citizens

If the very concept of the periphery was new to the 19th century then so was the segregation that it would later signify. The separation of work zones and residential zones was a novel feature of the industrial city, and so was the division of rich and poor.

Paris, the archetype of a museumified centre surrounded by a disenfranchised periphery, pioneered this model. When Baron Haussmann cleared the medieval streetscape for the boulevards he set in motion a process of forcing the poor to the periphery and forged the concept of social zoning.

And yet, even in 19th-century Paris it was common for rich and poor to occupy the same building. It was not until the postwar period, with the construction of the banlieues, that social divisions would be so starkly spatialised. The tower blocks built on the periphery served to two purposes: to boost the construction industry and thus the economy, and to house the workers, many of them from the former North African colonies, who would drive the mid-century's prosperity. But with industrial decline and rising unemployment in the 1980s, the banlieues fell into a vicious cycle of impoverishment, urban decline and marginalisation.

When Lefebvre conceived of "the right to the city", it was supposed to include the peripheries. Instead, Paris exemplified the dualism that he identified as potentially revolutionary, with the elite occupying the centre and the disenfranchised the suburbs. "Now we are beginning to realize that the suburbs are monstrous, that the high rises are unlivable, and that they produce new generations of rebels and delinquents," he wrote. These rebels and delinquents were a far cry from "the marginal man" that the Chicago-school urbanist Robert Park had imagined in the 1920s. Writing about the role of immigrants in urban culture, Park identified a type of migrant, such as the emancipated Jew who had left behind the ghetto but not quite been accepted into society, as "the first cosmopolite and citizen of the world". In contrast, the marginal man raised in the high rises of Paris was so thoroughly ostracised by the central elite that during the banlieues riots of 2005 President Sarkozy had no compunction in branding the perpetrators "scum".

Paris is also the archetype of a ringed city, and concentric rings seem ideally suited to a hierarchy of urban space defined by distance from the historical and political centre. This is particularly so for suburbs that lie outside the psychological border of the Périphérique ring road. But like London's Green Belt, these rings also define clear development zones. As Paris grows, it will have to densify within its second and third rings, which is no mean challenge, as it is already twice as dense as London. One solution is the Grand Paris Express, a new 200km metro line that is due to start construction in 2015. Seventy-two new stations, linked by driverless trains, will connect the suburbs beyond the Périphérique with the city centre. This so-called "super metro" will help wean suburbanites from their cars and stimulate a denser urban fabric for the periphery. But aside from self-driving trains, Paris is home to an experiment that may have profound consequences for other standardised peripheries. Densifying the city will be difficult if the impulse towards tower blocks is to knock them down. And that that was certainly the inclination towards the Tour Bois-le-Prete, a non-descript 1960s high rise on the Périphérique. It was likely to be demolished until the architects Lacaton & Vassal and Frédéric Druot undertook a dramatic remodelling of the tower. In consultation with the residents, they expanded each apartment with an outer layer of balconies, replacing mean windows with walls of glass. This transformed not just the perception of the building but the experience of living in it.

And, significantly, this transformation was achieved for nearly half of what demolition and rebuilding would have cost. The renovation of Tour Bois-le-Pretre stands out as precisely the kind of innovation necessary to regenerate urban peripheries. It is surely a persuasive argument against the demolition of a generation of tower blocks from the 1960s that, much maligned, are soft targets for local communities and developers, even though they may be structurally sound. Imagine what the implications of such a strategy might be for the peripheries of cities in eastern Europe or China. Imagine what it might mean for Moscow.

The suburb as machine

The Russian capital has clear affinities with Paris in an urban plan delineated by concentric rings. These demarcate a highly structured set of peripheries, from the Garden Ring to the new Third Ring Road, from there to the border of the official Moscow region and then out to the MKAD orbital road and beyond. This is a landscape that takes in the vast microrayons (standardised housing districts) that define the dormitory suburbs, as well as the dachas that Muscovites escape to in summer, and the satellite towns built to service industry and scientific innovation. Of these, the most striking by far are the microrayons. Socialist suburbanisation was a very different phenomenon from the one that took place in the West during the same period. Faced with the enormous scale of rural migration to Moscow, in 1954 Khrushchev decreed that housebuilding should be rigidly standardised and industrialised. The state embarked on a construction programme the likes of which had never been seen. With factories churning out prefabricated components round the clock, the periphery of Moscow was transformed into ranks of megablocks, most of which looked identical. These were deployed in acres of space, in orthodox modernist fashion, to form microrayons, or municipal micro-districts housing up to 100,000 people.

If this was different from the banlieues of Paris it was not just in its scale. Firstly, this periphery was not reserved for an immigrant working class distinct from the gentry of the city centre, it was simply the standard living condition of the majority of the population. Secondly, and perhaps more obviously, there was no housing market, and thus these dormitory suburbs were not desired or rejected by a populace of consumers, they were simply allocated. Hence, though they had their problems, they were not zones of social exclusion.

However, since the fall of the Soviet Union this has begun to change. Moscow has succumbed to the pressures of a globalised market. And while that means that IKEA and other big-box retailers have arrived in the periphery, it also means that social polarisation is growing. A new elite is building itself office complexes and luxury condominiums in the centre, and rising land prices are pushing the rest further out.

Moreover, while Russia's demographic graph is pointing steadily downwards, over the last decade Moscow's population has been growing by 200,000 a year. This has triggered some extreme solutions. In 2011 mayor Sergei Sobyenin announced that Moscow's municipal region would be expanded to more than twice its size, with most of this land grab coming from the south and southwest. The idea was that it would ease traffic and lead to 2 million new homes being built. But it was hardly the most sustainable solution. Instead, Moscow could look to the vast reserves of untapped potential in microrayons. Half a century after they were built, these are now the topic of much debate. Should they be preserved, demolished or reinvented? This is where Tour Bois-le-Pretre becomes an instructive case study. Surely there is a way in which the megablocks can be retrofitted to suit the new lifestyle demands of 21st-century Muscovites. Even beyond the extension of the buildings themselves, the microrayons contain huge reserves of under-used land – land that, crucially, is publicly owned. If the city was so inclined, it could open up some of that space to new uses on an ambitious scale without having to wrangle with private landowners. It could be densified not just with housing but with enterprise ventures, social amenities and cultural programmes – not just more beds in a monocultural dormitory suburb but everything that is required for a diverse and vibrant urban life. That is the path towards a thriving and polycentric city.

America, north and south

In stark contrast to the postwar patterns of peripheral growth in Europe and the Soviet Union, the United States came to define what we think of when we hear the word “suburbia”. Instead of publicly funded dormitory suburbs for the working class, these were privately developed enclaves of comfort, catering to a middle class that was giving up on the inner city. Far from that sense of collective humanity (ghettoised or not) that defined the banlieues of Paris and microrayons of Moscow, American suburbia catered to what was (in theory) a deeply individualist sensibility – a house, a garden, a parking space. What was extraordinary about the suburbs of Los Angeles was how in the 1950s and 60s they managed to leverage that sensibility into a separatist movement. As Mike Davis has illustrated, private neighbourhoods such as Lakewood strove for independence from the mother city. This was effectively a middle-class revolt against taxation, welfare and what it saw as the evils of bureaucracy. Here, the perceived rights of private property led to a wilful logic of segregation – a self-segregation, if you will – that was very different from the helpless marginalisation of the urban working class in Europe.

Lakewood epitomised a kind of homeowner activism and nimbyism that grew politically influential. Of course, while such suburbs were successfully fighting being incorporated into the municipality, Los Angeles itself was being drained of the tax revenues necessary for the maintenance of the inner city, which was increasingly being left to the Black and Latino communities. As Davis puts it, these were “zero-sum struggles between the affluent homeowner belts of the Westside and Valley, and a growing inner-city population dependent upon public services.”

But Los Angeles is another example of immigration's ability to transform a city's fortunes. In the decades since the exodus of a million and a half people from the inner city after the Watts riots, 5 million immigrants have since moved in. At the same time, the suburbs have been steadily

densifying, turning what was once a byword for suburban sprawl into the densest metropolitan region in the US. If even Los Angeles can pull off such a counter-intuitive achievement, then it is a sure sign of what awaits the other major urban peripheries in the country.

However, density is not always the problem. South of the border, in Mexico and in Latin America generally, urban peripheries hold vast populations but the nature of that urbanity needs addressing urgently. In the mid 20th century, long before China or Africa, Latin America experienced mass urbanization on a scale that the world had never seen. Like sponges, urban peripheries soaked up these waves of rural migrants. Successive governments in Brazil, Venezuela and Argentina did their best to accommodate these burgeoning populations in state-built housing projects, and failed spectacularly. In the end, informal settlements – favelas, barrios and villas miserias – were the most effective option of giving countless millions a right to the city. From that perspective alone, the informal city has been a profoundly effective mechanism. But with it comes the serious questions of infrastructure, transport and quality of life. These are questions that Latin America has been coming to terms with, and the lessons learned will no doubt influence life on the peripheries of cities across the developing world. The reason why Latin America is crucial to this debate is because, even though its metropolises are not growing at the rates they used to, all the growth is in the peripheries. And Mexico City is one where, to all intents and purposes, the city is the periphery. Since the 1980s Mexico City has seemed to offer an apocalyptic vision of urbanity as an endless, smog-ridden cityscape. In 1989, Time magazine called it an “urban gas chamber”. And in a population of 20 million, the majority must consider themselves to be living on the periphery.

Unlike the private suburban development of London and Los Angeles, or the public social engineering of Paris and Moscow, Mexico City has no dominant approach. Thus far, the city’s ability to reproduce itself has relied heavily on two opposite tendencies: self-built slums and developer-built communities for the poor. And the products of those processes can be witnessed right next to each other, in the neighbouring districts of Ciudad Neza and Ecatepec.

Ciudad Neza is an informal settlement of low-rise houses that are home to 1.1m people, making it the second biggest municipal district in Mexico. Half a century after it’s founding, it is not necessarily what you would call a slum. Ciudad Neza has proved that informal settlements have a natural capacity for regenerating themselves. More spectacular as a phenomenon, and in a sense more worrying, is its neighbour Ecatepec. Here private developers have built rows of identical houses that stretch all the way to the horizon. Ecatepec is home to 1.6 million people, making it the most populous district in Mexico. It is a singular example of how successful developers have been at

transforming the landscape of the periphery.

Here, companies such as Casas Geo build out of cheap, adobe-coloured cinderblocks, creating acres of traditional-looking cookie-cutter houses which they sell to the poor using facilitated lending schemes.

Amazingly, both squatters and developers each manage to build 100,000 homes a year in Mexico City. But which type is preferable?

One might think that any formal house is better than any informal house, if only from the point of view of its potential to generate loans and capital. But Casas Geo's monoculture is not conducive to commerce or streetlife, and has none of the vibrancy of Ciudad Neza. It is urbanism at its worst.

Mexico City's current population growth is based on birth rates rather than migration, which means that rather than merely coping with an influx crisis it can now focus on creating a sustainable model of growth. The challenges here are both infrastructural and administrative. Part of the problem is that most of Mexico City's periphery lies outside the municipality's boundaries – the mayor of the Federal District only governs half of the city's electorate. How does the municipality create the legislative consistency it needs to provide services and develop the city within its current footprint? Shanghai and Istanbul – and now it seems Moscow – did this by simply extending the municipality to the regional boundary. But that is a policy that is easier for authoritarian governments to pull off. The other challenge is transport. Clearly, the distances of Mexico City militate against walking. And, despite an affordable and popular metro system, it has one of the highest car ownership rates in Latin America, with chronic traffic and a disturbing traffic fatality rate. The city needs to invest in a public transport network for the periphery that can link up neighbourhood hubs in the manner of the polycentric city.

Latin America's other great megacity, São Paulo, shares similar challenges: a vast periphery that oversteps the municipal boundaries, poor infrastructure and public transport, and rampant informality. Yet São Paulo's periphery is a varied landscape marked by a diverse history of strategies for accommodating its swelling population. These range from enormous gated communities such as Alphaville, where the wealthy fled the inner city in the 1970s and 80s, to corticos, the tenement blocks where whole families occupy single rooms. Most obviously, there are 1,500 favelas across the city, many without running water, sewerage or legal electricity. For decades these were vilified in the city's imagination, but they have been a phenomenal system for absorbing migrant labour. And their sheer scale testifies to the failure of half a century of government housing initiatives.

These include 1960s modernist estates such as Zezinho Magalhaes, designed by Vilanova Artigas and Mendes da Rocha, which is not so far in spirit from the microrayons. But they also include Cidade Tiradentes, a vast and soulless housing estate 25km east of the city centre. Built over 20 years, largely under the dictatorship, it is the largest housing estate in Latin America. Here on the very edge of the city are 45,000 apartments, not just socially marginalized but excluded from proper public services and public transport. So often in Brazil, housing projects such as this one were merely tools to boost the economy and had nothing to do with good city-making.

Brazil's dictatorship, like so many others in Latin America, had a disastrous track record of slum clearances and mass housing policies. It was partly thanks

to the obvious failure of such schemes to meet the scale of the problem, and partly thanks to the neoliberal economics that took hold in the late 1980s, that the government more or less gave up on trying to solve the “problem” of the favelas. The laissez-faire decades of the 1980s and 90s – the so-called lost decades – saw them take on enormous proportions. President Lula famously lifted 40 million Brazilians out of poverty with his financial redistribution packages, but his housing policy commits all the sins of the past. After the economic downturn of 2008 he instigated a massive housebuilding scheme called *Minha Casa Minha Vida* (My House my Life), which continues to house the poor in terrible buildings far out on the peripheries, often three hours’ commute from the centre. Aside from promoting urban sprawl, the programme is really designed as a financial instrument to provide credit lines to the construction industry.

Far more promising are the slum-upgrading schemes that have been underway in recent years in favelas such as Paraisópolis. Here the city has been improving the quality of housing, retrofitting basic services such as running water and drainage and adding cultural hubs such as the Grotão music centre. The slum-upgrading programmes that have been adopted in Rio and São Paulo since the late 1990s serve as a progressive example for other developing-world nations with rampant informality. The experience of these Brazilian cities is that building connections to the favelas – through transport, public spaces and cultural initiatives – is the only way to integrate them into the city. In the 20th century informality defined the peripheries of these cities, and the challenge of the early 21st century is to incorporate them into one civic culture. That means giving the favelados the services they need and dissolving the physical and social barriers that led to stigmatisation. When that happens, terms such as formal and informal will become academic.

The polycentric future

The periphery served multiple roles in the 20th century but one thing is clear: it was a symptom of growth. For many developed nations in the 21st century that will no longer be the case. Aging populations and shrinking cities will require a conceptual paradigm shift. In Russia and Japan, for instance, the birth rate is in steady decline, and this presents unprecedented challenges. Beyond shrinking suburbs, what to do with Russia’s deserted single-industry towns? While Moscow absorbs more and more of the national economy and its human resources, cities like the former textile capital Ivanovo are in steep decline. More famously, a third of Detroit is now abandoned. Some hope that the urban farming being pioneered in the former home of the production line will yield a new kind of city, ruralised and agriculturally productive. Perhaps, but it’s unlikely to be enough on its own. In parts of the developing world, of course, it is a different story. The rapid urbanisation of China seems to continue unabated. Beijing, a ring-road city like Moscow, is growing like London did in the 19th century, by swallowing

up the surrounding villages, but aided by a state-sponsored construction boom such as the world has never known. Whether that experiment will end well remains to be seen. In India and Africa, meanwhile, urban growth is largely of the informal variety. Here the lessons of Latin America may prove instructive, chiefly that shantytowns are not necessarily the problem, and with infrastructural support and legal representation they may well be the solution.

Yet the very question of the periphery implies a single centre. But what if peripheries start to merge? This is something predicted by the UN Habitat report of 2010, which foresees metropolises joining together like blobs of mercury to create “mega-regions”. One of these is in west Africa, where the cities of Lagos, Ibadan, Lomé and Accra are threatening to merge – an amalgamation that would spill across the national borders of Nigeria, Benin, Togo and Ghana. Are there strategies for trans-national cities? One example is the urban region created by San Diego and its neighbour Tijuana across the US-Mexico border. Their economies are so interlinked that the mayor of San Diego is currently trying to encourage a cooperative relationship. He even pitched a joint San Diego-Tijuana bid for the 2024 Olympics – a concept the International Olympic Committee is clearly not ready for yet. There are excellent case studies, however, for how inter-urban regions operate. Tokyo, the largest metropolitan region in the world, pioneered a polycentric approach to growth. Originally, focused on hubs such as Shibuya, Shinjuku and Ikebukuro, it has subsequently included satellite towns. Key to this strategy was an intricate public transport network. And the same is true of the Randstad in The Netherlands, which links Amsterdam, Rotterdam, The Hague and Utrecht in one conurbation. Though small, distinct cities, their suburbs effectively merge. With their transport efficiency and the fluid exchange of their populations, each commuting to each other’s city, it is easy to imagine that this might be a model of the polycentric cities of the future.

Such complex urban and inter-urban networks will define the city of the 21st century. The old binary relationship of the periphery to the centre is changing. A globalised economy, flexible working patterns and communications technology are gradually altering the picture of a business centre surrounded by a commuter belt. The challenges facing the periphery are less about growth and more about transformation. In the face of increasing social polarisation, peripheries need to be integrated, connected and vibrant in their right. Already, in the major global centres that shift is beginning to occur. Peripheries are being made denser, more concentrated and woven into the city with elaborate transport networks. Suburbia is being urbanised.

Challenging the Cult of the Centre

Brendan Cormier

There is a cult in urban planning and its membership is growing. Broadcast through keynote speeches, inspiring documentaries, and a global network of consultants, its fundamentals are starting to take hold of the city. It's a cult that professes the virtue of the traditional city – a cult of the center – where streets are walkable, public spaces are vibrant, and cappuccinos are everywhere. If you listen carefully you can hear it echoed around town: in the rhetoric of local politicians, the marketing campaigns of developers, and the catchy verbiage of official planning documents.

The cult hinges on a simple narrative. After years of neglecting our urban centers, sequestering ourselves in anti-social car-dependant suburbs, we've rediscovered the virtues of urban living. People are moving in droves back to the core to enjoy bustling streets, local farmers markets, sociable public spaces, and civic life.'

It's a pleasant idea no doubt – so pleasant that thousands of municipalities have paid top dollar to have it recounted to them in local town halls and civic forums. And if they like what they hear, top consulting fees go to showing them how to do it: through a varied list of purportedly bespoke but essentially boiler-plate documents: urban design guidelines, strategic plans, sustainable transportation studies, public space audits, and so on.

Capitalizing on this movement as so many consultants do wouldn't be so objectionable if it produced objectively better cities. And viewed on a case-by-case basis, lobbying for investment in our city-centers has led to some marginal gains: nicer waterfronts, more pedestrian-friendly boulevards, better public spaces. It is hard to speak against projects like the High Line in New York, where a disused piece of elevated railway was energized into a beautiful and vibrant public space; or similarly in Moscow, with the Krymskaya Water Front project, where 4.5 hectares of riverside land were made public through a newly designed pedestrian zone. But as I'll describe in this essay, the reductive thinking that fuels the cult of the center is loaded with problematic biases, ones that could disrupt our cities as a whole more than it strengthens them.

Origins of the Cult

If the narrative of a return to the city sounds distinctly American, that's because a significant part of the narrative was born there – from the great postwar suburban boom and white flight from America's downtowns. By the eighties, some of the country's mightiest cities were largely destitute and bankrupt, the site of race riots, high crime, and drug epidemics. Meanwhile the suburbs had developed their own kind of social anomie, where hyper individualism and car-dependent landscapes led to a dramatic decline in civic participation.

It was around this time that a group of architects and urban designers, concerned with the state of both suburb and city began a multi-pronged campaign to promote more traditional urban developments – developments which valued denser buildings, walkable neighborhoods, and sociable public spaces. Uniting under the banner of New Urbanism, these practitioners pioneered new design concepts like 'pedestrian and transit oriented development' where buildings were specifically arranged to allow for different modes of transport, and 'traditional neighborhood design' which employed time-tested urban vernacular architecture and street layouts. They advocated building for a mixture of incomes, and providing space for mom-and-pop shops. They penned passionate tomes against the continued expansion of sprawling suburbs, with hyperbolic titles like *Suburban Nation* and *Geography of Nowhere*.

By 1981, New Urbanism even began its first real development, Seaside, in Florida. Designed by New Urbanism stalwarts Andrés Duany and Elizabeth Plater-Zyberk, the development featured a range of remade historic vernacular homes and an urban design modeled after traditional seaside towns. It was so picture-perfect in its historical revisionism, that it was used as the set of *The Truman Show*, a movie which depicts a man unwittingly being raised and monitored as a part of a TV reality show. In 1993 the New Urbanism movement coalesced into the Congress for the New Urbanism (CNU), a vital platform from which they could broadcast their mission, values, and ideals, but perhaps most importantly recruit members to the cause.

The CNU wasn't the only institution calling for a return to the city; around the world there were organizations pushing similar agendas. Project for Public Spaces (PPS), for example, was established in 1975, and set out to expand on the work of William Whyte, author of *The Social Life of Small Urban Spaces*, on how to create high-quality public spaces. In addition to working directly with communities around the world, a large part of their mandate focuses on educating people to become 'placemakers', training upward of 10,000 people a year. Later, in Britain, there was the Commission for Architecture and the Built Environment (CABE), established in 1999 as the government's advisor on architecture, urban design, and public space. While ostensibly broader in scope, and less prescribed in its urban advocacy than the CNU, many of its publications shared similar ideals.

Over the past couple decades, several figures who prescribed to New Urbanism ideals would take on important positions in city governments and as global consultants. Perhaps most notably as chief urban planner of Vancouver Larry Beasley would become famous for guiding high-density development in the city's downtown along New Urbanist lines. He is largely credited for a brand of development called Vancouverism, where tall towers are set back on a low-rise street-level podium, thus mixing high density living with human-scaled streets. His success with developers was also hugely responsible for legitimating CNU ideals as financially viable. He would go on to play a major role espousing New Urbanism in Abu Dhabi and setting up their planning framework there, as well as consulting for cities around the world. Equally large in notoriety was Jan Gehl; a fan favorite of the CNU, he rose to popularity through his work with and later re-tellings of the pedestrianization and improvement of Copenhagen's city center. He has since become one of the most sought-after consultants on public space in the world – most recently hired in Moscow for a 'public space-public life' study of their city center.

As the 'return to the center' rhetoric espoused by these groups has been monetized into a viable service through success stories like Vancouver and Copenhagen, even large engineering firms have adopted the language to remain competitive. Arup and HOK both market themselves as today as placemakers – the very same language that PPS pioneered years ago. Meanwhile virtually every urban planning office has co-opted the toolkit of New Urbanism as services in their portfolio.

Worldwide, this notion of a return to the center has gained added currency with the rise of what Saskia Sassen has called 'global cities'. Cities today compete with each other to become important nodes in the global economic system, carving out niches as purveyors of a talented work pool, high-profile companies, and a quality built environment. City rankings like Monocle's Most Livable Cities Index, the Economist's Livability Ranking, and Mercer's Quality of Living Survey, help bolster politicians to make concrete investments in the infrastructure of their city centers to stay competitive. Popular stories like the Bilbao-Effect – where investment in iconic architecture can help rejuvenate depressed cities – add increased pressure for city administrations to make symbolic investments in their city centers.

A Myopic Agenda and its Contradictions

So far, so normal; a picture of an ambitious urban design movement, which through clever broadcasting and perceived success, has been adopted by practitioners worldwide. So why invoke the hyperbole of cult status? Because it presents a myopic reduction of an urban ideal – in this case an ideal based on a revisionist pre-war American city, mixed with cherry-picked scenarios taken from Europe and abroad – which is currently being applied wholesale throughout the world. This is especially worrisome when we consider the huge variety of nuance that each of our metropolises possess. It denies the notion that there are multiple possible urban ideals, multiple models for urban success. Here are just a few aspects that bear questioning: Density – Density is a common invocation in the cult of the center. Reacting against the low-density sprawl of the suburbs, they actively beseech municipalities to change zoning laws to allow for increased density. Yet density comes in all shapes and sizes, and the cult is selective in what it likes. For instance, while Los Angeles is actually one of the densest cities in North America, and has a vibrant urban culture – as documented by the likes of Reyner Banham, Edward Soja and others – it is generally disregarded by

the cult because of its car culture. Similarly Hong Kong tips the scale in being too dense and too crowded – beyond the ‘human scale’. Instead the cult takes a not-too-hot-not-too-cold approach, preferring time-tested typologies like perimeter blocks, the step-backed ziggurat towers of pre-war Manhattan, and three-storey Victorian homes and row houses.

Nostalgia – As hinted before, the cult of the center is heavily nostalgic, denying contemporary realities for idealized visions of the past. It favors vernacular architecture over modern architecture and watercolor renderings over computer renderings. Its presentations and documents are filled with Kodak moments of children playing, lovers kissing, and people laughing. It favors urban plans that were developed centuries ago and believes in timeless design.

And perhaps this last part is the most troublesome. In the seventies Christopher Alexander published a book called *The Timeless Way of Building* and quickly followed it with *A Pattern Language*. The first establishes the notion that there is a universally good way to build (referenced, of course, with lots of old buildings) and the second sought to prescribe exactly what that timeless way was. *A Pattern Language* has become required reading for center-cult members, and the basis for countless cult-produced Urban Design Guidelines, that while written for different municipalities, are almost always the same.

Lifestyle – Embedded in the cult’s vision is a specific lifestyle, one that ignores other lifestyles in its factors for success. Although it claims to seek out diversity by designing for a variety of incomes, it perpetuates an image of the middle class consumer who has free weekends and plenty of time for shopping and lounging on patios. High streets are only deemed successful if they are full of shops and a shopping public. Public spaces are only successful if they promote ‘lingering’, with enough people with free time to just sit about.

PPS’ Powers of 10, for instance, encapsulates how consumer-driven the messaging of the cult is. Developed as a framework for determining how successful any particular place is, it dictates that a truly good place should offer ten things to do at any given time. It is maxim perfectly in line with a service-obsessed citizenry looking to be entertained in as many ways as possible, asking ‘What can this space do for me?’

Language – Most cults manipulate language to help build their narrative, employing neologisms, aphorisms and other thought-terminating clichés. These help quell the cognitive dissonance one might encounter when comparing a cult’s vision with that of reality. Not surprisingly groups like the CNU and PPS, through decades of communicating with politicians, developers and the general public, have worked hard at developing a language that can convey their ideas in an easily digestible and difficult to contest way. Designing a public square becomes ‘place-making’; implementation becomes ‘big moves’ and ‘making it happen’; ideation becomes ‘dream sessions’ and so on.

These are terms that are difficult to argue against: we all know what bad design is, but what is ‘placemaking’? And who doesn’t want to ‘make it happen’, when ‘it’ can mean virtually anything we want?

New Challenges, Old Solutions

As the Cult of the Center spreads globally; as more cities commission beautified shopping streets, new civic plazas and retro-kitsch master plans, what is most distressing is the increasing amount of urban problems that go unaddressed. Tides are shifting, and even the American cities that the cult originally sought to revive, have a new set of problems. For instance, the empty dangerous downtowns that once characterized many cities like New York and San Francisco are now havens for the rich. The cult’s mission to get the middle class back to the center has failed, not because the middle class doesn’t want to move there, but because only the super rich can now afford the rent. Even a cult trophy city like Vancouver has a downtown that is vastly unaffordable for most middle class, let alone working class citizens. Meanwhile Manhattan has become an island exclusively for millionaires. Yet still we applaud the dramatic placemaking by the City’s Department of Transportation, which recently transformed several streets into public squares, without asking: ‘for whom?’ This is precisely what leading New York City mayoral contender Bill de Blasio has now based his campaign on; bringing focus back to the middle and working class of the city, after years of Mayor Bloomberg privileging the rich.

Nor has the cult been able to properly address the opposite problem, urban shrinking. When ailing manufacturing towns have commissioned the cult for downtown improvements, they get white elephants like cultural districts that no one visits and token trams that go nowhere. In Detroit, where a serious discussion is taking place on strategically dismantling parts of the city because of vacancy and infrastructure costs, the cult has been unable to adequately respond, for as Brent Ryan has noted: “Trapped by their commitment to density, historic city forms, and neotraditional architecture New Urbanists could raise important questions for shrinking cities, but could not begin to answer them.”¹ Indeed at a global level, the competition between cities to become world capitals has left many mid-sized cities like Detroit in the dust. Powerful national centers, competing for global attention, such as Moscow, Paris, and Mexico City, have drained the talent pool from other cities and regions of their respective countries, and along with it, future prospects for success.

There is also little evidence that the cult is capable of dealing with the compounded problems of the megacity. In China, while many satellite towns have been built under the New Urbanist rubric they are polite gestures in a sea of immense growth, with countless hyper-dense towers spreading throughout China’s city centers. In cities as sprawling as Mexico City it is hard to imagine what ‘a return to the city’ would even look like, when people already live everywhere. The problems in these places are not a lack of density or walkability, but the vast technical quandary of supplying fresh water and moving traffic. And in Moscow, where the latest high-profile project will be a new park in the heart of the city, with six top design offices competing for the commission, there is little mention of the vast ageing stock of microrailon neighborhoods in need of rehabilitation.

In places with considerably less money, like Havana, proposals from the cult take on an absurd character. In suggesting what to do with the thousands of decrepit historic buildings in Havana, Andrés Duany once unflinchingly claimed they should be rebuilt exactly the same as they were.

There was no regard for the lack of money that the city had, the political climate, and the changing demographic reality. Perhaps the cult at its most out-of-touch came with Haiti. In 2011, after the ravages of a devastating earthquake, and the social unrest, disease, and disenfranchisement that ensued, again Andrés Duany revealed his office's plans for a new rebuilt central district of Port-Au-Prince. The results were boilerplate Duany: water-colored axonometrics, a consistent grid of similar but varied vernacular architecture, and a shopping list of amenities for a middle class lifestyle, including copious underground parking. Concerning the excessive amount of parking offered in his vision, Duany invoked a familiar dictum, "If Port-au-Prince is to be rebuilt, it can only be amortized by the middle class and above. The question is: how do we bring them back? Because you cannot reconstruct the city without them."² But in applying his 'back-to-the-city' mythology to Haiti, the suspension of our disbelief is broken. In a politically fractured, IMF-ravaged, infrastructurally devastated situation like Haiti, are we really expected to believe that the key to rebuilding Port-Au-Prince lies simply in bringing back a mythical middle class, who want lattes and free parking?

A Cult of the Periphery?

As our world continues to urbanize, and as global problems increasingly become urban problems, there's an urgency to throw away dogma and look at each new challenge with fresh eyes. We need to challenge the blatantly classist and commercial plans drawn up by the cult of the center, and demand new solutions. Thirty years ago, those advocating for a return to the city and urban living, might have seemed like radicals. Now, their vision and their words have taken on a dangerous level of normal, while growing increasingly anachronistic by the minute.

If the pendulum has swung too far towards a cult of the center, does it make sense to suggest a counter-swing to a cult of the periphery? Well, 'cult' is perhaps a word we should avoid altogether. Instead we should look to paradigms that address the city as a whole system, focusing on problems not based on their relative location, but based on their urgency. Fortunately, there are many examples that we can point to.

One such paradigm that has gained currency over the past decade is landscape urbanism. Its proponents, such as Charles Waldheim, James Corner, and Mohsen Mostafavi, believe that the main organizing principle of the city should not be its buildings, but its landscape. With its strong emphasis on ecology, natural infrastructures, and horizontality, landscape urbanism doesn't privilege any notion of centre, treating the entire surface of the city as equal. Unsurprisingly, it has been highly criticized by New Urbanists for its ambivalence towards density.

We can also seek alternatives in the architectural practices that focus on bringing architectural quality to peripheral sites. Kunlé Adeyemi's recently completed school in a floating slum in Lagos, and Giancarlo Mazzanti's

projects in poorer neighbourhoods in Medellin are good examples. Perhaps even better examples, ones that go beyond one-off commissions, are studios with a more focused agenda on peripheral conditions. Estudio Teddy Cruz has been working for over a decade now in marginalized zones of Tijuana and Southern California, not just building, but researching, advocating, and even changing laws to improve conditions. Meanwhile Rural Studio, based out of Auburn University, has been building quality homes in poor communities in rural west Alabama for the last twenty years, while teaching students the need and benefit of working these disadvantaged territories. Still projects like these are relative drops in the bucket when we think of the vast underdeveloped peripheries of our modern day metropolises. Instead widespread policies will be needed to address housing, infrastructure, transportation, and basic human needs of the periphery. This requires major political consent, and the redirection of funds away from vanity projects in our city centers towards unglamorous projects on the fringe. A major task of architects and urbanists will be to make the case for these investments. If we can draw any lessons from the cult of the center, it's how they were so adept at making a case; convincing politicians and developers that downtowns were worth rescuing. The same tactics need to be now directed to the edge.

¹ Brent D. Ryan, *Design After Decline: How America Rebuilds Shrinking Cities*, (University of Pennsylvania Press, 2013) p201.

² Greg Lindsay 'Port-au-Prince 2.0: A City of Urban Villages?' *Fast Company*, Jan 26th 2011. (At: <http://www.fastcompany.com/1720799/port-au-prince-20-a-city-of-urban-villages>)



Roger Connah

Editor (English Section)

**You're in the Magic Wand Business,
Wave it!
Thinking Peripherally**

Notes from a Penguin on the
pe·riph·er·y

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NOTES FROM A PENGUIN ON THE PE·RIPH·ER·Y

PERIPHERY

- 1 the outer limits or edge of something
- 2 a less important or central position

PERIPHERAL

- 1 involving, or forming a periphery
- 2 of minor significance (a peripheral condition)
- 3a relating to, or situated at or near the surface of the body
- 3b supplying the part of the nervous system other than the brain and the spinal cord
- 4 auxiliary or supplementary (a peripheral device)

THE WOLF AT THE DOOR

On page 341 of John Le Carre's novel "A Most Wanted Man" (2008) we find the character Dr Abdullah taking hold of the hand of Tommy Brue, the British banker and lecturing him about history, amnesia, and the necessity to forget: 'Tomorrow was created yesterday, you see. That is the point I was making to you. And by the day before yesterday, too. To ignore history is to ignore the wolf at the door.' Le Carre italicises the words tomorrow and before. What better way to approach and understand the periphery and the city than the contemporary spy thriller? The future of the city's periphery, any city's periphery (and they are all different) can only be grasped — restlessly and creatively - by understanding the day before yesterday, by understanding the wolf at the door.

Whether it is the centre that puts the margin in terror, or terror that puts the margin in fear of the centre is no longer a clear narrative. It might even be the other way round. Ever since the distorted realities and social engineering of the 20th century, megacities have emerged — often out of control — to overcome land not supposed to be developed, evict people not supposed to be evicted, build on flood plains not supposed to be built on, cause land subsidence where it shouldn't happen and disperse - in the name of the centre's attraction - just about anything and anyone it could confiscate or disenfranchise. The condition is simple - economically, culturally, socially and personally - to deal with The Centre Inc., it has always been necessary for the periphery to strike back.

But how does a periphery, in all but confused word, concept and demarcation — in all its secondariness — strike back? How does it develop, how can it develop; how can in this case Moscow develop? How can we define what needs to be developed when definitions themselves are changing, replaced by an immediacy that is both thrilling and unforgiving? Who has the wand, in the spy thriller language, and who makes the weather in what we can call this peripheral condition? We are so often unsafe in cities, but still comfortably lodged within the world of the thriller. Money is transferred from shifting centres and costly obsessions with control and surveillance fail to thwart corruption. Self-interest questions the extraordinary in 'extraordinary rendition', and whole communities disappear into unprepared peripheries that cannot be traced. Who amongst us would not call on a little magic if it were offered? But how much in our cities are we in dreamland?

AN UNSPOKEN TENSION

Information is multiplying, of course it is. There is no reason to deny this or to feel the anxiety there once was, when the information bomb first hit. The magic wand however needs more than analysis, its need civic courage. Even our writing, research and scholarship may have to change. We are all central and peripheral at the same time, existing often in an unspoken tension; to ourselves, to each other, to our cities and our countries! Whether we speak of a line that forms the boundary of a space, an area, a town or a city, even a country, we are always included in an unspoken tension that exists with an edge, with a perimeter. Tension itself struggles for respite. We are orphaned without always realizing it. Cities too. We can even imagine the outermost part of this peripheral space, never too tactile, always shifting even if our mapping suggests precise boundaries and the statistics suggest controlled expansion. Boundaries by nature cannot be precise and the urban periphery rarely stays long enough before new maps are drawn, new treaties signed, and land ownership re-draws this extra-territoriality. Perhaps more suitable for us would be that zone, a non-city zone constituting the imprecise boundary. Or more accurately it is that zone in Andrei Tarkovsky's film *Stalker*. The suggested contaminated zone, the unreachable land containing the empty centre, where science waves its wand, and the narrative flies upwards. Intriguing that the novel the film was based on was called *Roadside Picnic*; what better peripheral condition and event! A banquet on the run! This is the holy grail of the no-go area, when we pass over the boundary and take on the edge. This is the periphery and the ritual of constant transgression; that trespass to another world. Which is why it attracts us, to use the word periphery, or *la peripherique*: it is edgy as edges always are and hopefully will be. The Finnish poet Paavo Haavikko offers us a journey to this region that is no place, the land that is not:

I came through the forest and went through the Winter palace,
Built in 1754-1762.
I let the exalted being out of the bottle and se
Was finished! Emptied! Aborted!
I am on my way to the region that is no place,
Listen, you who like climbing monuments,
Tourist, listen, perhaps you don't even know
I hardly get my expenses back, writing these poems, on my way
To the region that is no place.

THE LAND THAT IS NOT

Language both controls and liberates. Intrigued by synonyms for this space we call the 'periphery' (or peripheral – a different issue?) we can learn much by contemplating where one breaks off and leads to another, where the brink leads to brinkmanship on the urban fringe, where the perimeter gives over to the rim. Our vocabulary can also dance to the peripheral just like Miroslav Holub's 'Brief reflection on a fence' – there is power, such power that extends beyond poetry:

A fence
begins nowhere
ends nowhere
and
separates the place where it is
from the place where it isn't.

The fence extends into the periphery of our own minds, when history has left us and we accept cities to have been what they were and are today. Instead cities too are works-in-progress. Many cities once had walls, their ramparts strong enough to repel attackers, advancing hordes, the armies of invaders. Armies of the night would be patient, wait for the moment when the city was less assured, sensing a break in concentration. Contained within and always in tension with the chance that the boundary, the fence, the wall could be penetrated, both inside and out. Suddenly the inside is out and the outside is in - this is helter-skelter land! The day the funfair left town and left the marks of where the big top was fixed in the ground, or as Holub continues:

Unfortunate, however
every fence is relatively
permeable, some for small
others for large things, so that
the fence actually
does not separate but indicates
that something should be separated.
And that trespasses will be prosecuted.

Cities become individuals, power becomes 'them'; we speak of 'they' as if we know who exactly 'they' are. The fence separates, expands into the periphery. Disorder, once so hateful and hurtful however is never controlled so easily. The perimeter widens, turning and turning, "the falcon cannot hear the falconer" as W B Yeats wrote, "Things fall apart, the center will not hold." The centre has not held for so long today in many cities that it has so often cheated its inhabitants from their rights. Investment protects the invested, displaces the unfortunates, capital capitalizes on the fence that is now the periphery. Realities are re-writing even our poets. Language too will always strike back. We occupy worlds to turn them to our own. The antonym of the periphery becomes the synonym: as for the opposite, we are the poorer if we think only the centres define our future. We are sedated if we think only the nougat within the dark chocolate shell offers us the taste of luxury. Consider the periphery in cities that have no longer been able to hold onto their centre: Beirut, Cairo, Peshawar, Karachi, Baghdad. War necessitates constant alternatives, the homeland under attack, the centre no longer holds; the periphery offers multiple and shifting centres. No bad thing!

MARGINALIA

The periphery is both margin and centre. As in vision, we stagger without peripheral vision. In the Dictionary of Psychology, 'peripheral' has a less generous feel about it: "the opposite of central, applied to the surface of any organ of the body as whole." Let's try a divergent tactic and open a volume of the (Fontana) Dictionary of Modern Thought, where we might stumble across 'periphery' or 'peripheral': "The nervous system is conventionally subdivided into the cultural nervous system, which is the seat of the major correlating functions of the nervous system, and the peripheral nervous system, which correlates the connections before on the one hand the sense organs and central nervous system, and on the other hand the central nervous system and the muscular system."

Of course I immediately do what we should advise ourselves against and hijack one system for another. One system not working without the other - the hypertrophy of the correlative elements of the

city; the city as brain – just how can we distinguish the ‘autonomic behaviour system’ and where can we locate this but on the edge, in the marginalia of the uncurious and sedated mind? I imagine the periphery with its connecting receptors and effectors within the cerebro-spinal axis, but I catch myself in time. Enough, even though I am tempted to play further and consider city structures from this random insight, totalities need their weakness, and the drama of being incomplete. Let us go to the poet’s word instead, to that other peripheral condition, the dance floor of the mountain:

I sit on the liar’s bench
The cow in heat smelled of pine
Today the sheep came to the meadow
To eat the grass
That is their work, their task
So many flowers summer so soon.

If we accept the ‘informal’ might reside unregimented in unknown peripheries, then the microrayons might equally stage a dance floor on the mountain where norms can be resisted. We anoint it with wild flowers in an old marmalade jar. There we imagine a vibrant entrepreneurial and deterritorial-ized energy, a scat business beyond architecture, war and city dreams; a land that is not where uncertainty and unrest themselves are opportunity. Some speak of the third space; perhaps this is it where the third space becomes primary space in ritual, defence and wonder. But let us not get too involved in statements that only perpetuate the cliché of the great city, the great adventure.

THE DANCE FLOOR TO THE MOUNTAIN

Sao Paolo, Jakarta, Istanbul, Beijing, Singapore, Tokyo, Mumbai, Los Angeles, Mexico City, Berlin, and Moscow...the endless city? How do we read the periphery in such cities: from what direction and why the applause? Why, when experts and dust settle and the information mappers and journalists write out the rapidity of the city, must we take the critical attack and intelligence elsewhere. And where is that? When even graffiti outlines its own boundaries and tags the fragility of land use, possession and disloyalty become permanent. In this shadow of a delirious Moscow I suggest the periphery will become architectural code for ‘the empire will strike back’. Moscow’s periphery might not just be any periphery; it just might be central to any model of the future. Concerning the latter, I am thinking here of Richard Sennett’s small essay ‘The Uses of Disorder’, on personal identity and city life (1970), or his volume called *The Fall of Public Man*; or then *The Abstract Society* by Anton C. Zijderveld (1972). These are worth our return before we are seduced to the world of the sequel; like films, like critical fictions, like novels, more and more volumes and guidebooks on cities will continually turn as in a spin dryer. They ask those of us who wish to get lost, to get lost. Their trespass is too carefully managed.

The City is as slippery a term as culture, graffiti, investment and peripherals. We are becoming as diverse as we wish to be and as inclusive as we feel necessary. Of course this too is an illusion; any novel of J G Ballard would rip the skin from our bodies as much as our eyes feast on the guidebooks and manuals for speedier living in cities of our choice. Many forces will continue to pretend to be in control, to ‘fence the city in’, to gateway the peripheral future for risk-free investments. This is the role of The Centre Inc. If we once thought the city could do this just as it did when it closed the

city's gates and repelled invaders, it can no longer keep the 'goodness' in and the rabble out. Waiting for the barbarians has never been so thrilling. This is more likely to be a Ballardian dystopian scenario than it is to be found in urban theories and compendiums. We dream the city that is no longer ours, lost in the margins of every one else's city. Are we not also at the same time in the margins of everyone else, homo peripherus? As Terry Eagleton writes: "Only the marginal, perverse and aberrant can escape this dreary regimenting. Norms are oppressive because they mould uniquely different individuals to the same shape." The politics of the periphery is by no means subservient to the centre. The peripheral condition cannot only become part of the centre it often 'apes', but can both shape the power for that centre by shaping its own power. In this too we are peripheral selves, no less important as we seek to understand loss (which is often someone else's loss) and insert an identity (which is often someone else's identity). Homo peripherus then comes clean: get to the edge of your own mind and no one else's.

THINK AND READ PERIPHERALLY!

How is it possible to reverse the condition of peripherality; this condition of secondariness? Separation invites us to understand the power taken on by an apparent weak position. In structural linguistics a peripheral language' according to Mario Pei is a "language showing characteristics typical of another language group, supposedly acquired as a result of early separation from its own speech community and contact with the other group'" Now this interests us, for separation (the fence?) and poverty (the periphery?) have been factors too often promoting the extreme ends of urban theory and the politics of exclusion.

Around the time (1950-1970) when structural linguistics offered new vocabularies for controlling coded systems like architecture, fashion, culture and cities, it was felt that the reader would also become the redeemer. Faced with multiple texts, the death of the author, the burgeoning information age, and the Internet, no one could control the reading, no one could delimit its openness. Nothing could be closed; perhaps unnecessary to return to Umberto Eco's notion of the open work, but each city and the periphery that makes it, is - de facto - an 'open work'. Readers of course are just as varied as people in the city; some fortunate, others displaced; some with time, others without time; some with power, others without power. Diversity rules; it might be such a simple statement but its transfer into civic, political and social development is not. No city mirrors any other city though as Franco La Cecla writes, "cities dream of other cities." This after he has cited Akhmatova:

This city, loved since childhood
In its December peace seems to me today
To be a squandered inheritance.

In this squandered inheritance there is no constant discourse, no narrative that can smooth out the ennui from the provocation. This is as it must be, in city, in reading the city, in bringing the periphery to bear on the city's fragile condition. We make visible through shyness; the city will have to look at the periphery as a mirror. It is not a window beyond. In this way the city and the periphery is the werewolf: half seen, half slipping out of any grasp. The city as werewolf - the periphery as...how can you not like that?

HOMO PERIPHERUS

The uniqueness of the periphery may go against the idea that there are parent attributes in central cores of cities that are repeated in outlying areas. The notion of master planning ideas would loosen any proposal put forward and I would hazard a guess that Moscow's development can be richer and more unique; the vibrancy of pockets of London — centres, non-centres, shifting centres - where communities retain their identity in the bigger metropolis - might be a model worth exploring in more detail. But the fence is always there to be made less visible: try sitting on one, which shifts as we speak!

In this sense
the fence can
perfectly well be replaced
with an angry word, or sometimes even
a kind word, but that as a rule
does not occur to anyone.

At what stage does our reading and our understanding of the diversity of one city over the other, bring us round to some of the dreams we have about our cities? Who questions the dream, and who will stop the rain? Who has the wand and who will make the weather? When we consider the use of the word 'outlying' it is hard at present not to think of the phenomenon made more public and accessible by Malcolm Gladwell. From statistics, the outlier is usually accepted as an observation numerically distant from the rest of the data. We can all deal with that. That's a nice statistician's way of beginning to define that space, region, person, which exists outside some sort of norm.

Whilst not wishing to push this too far, it is the methodology implied which can interest us in understanding the texts presented here in relation to the periphery; especially aiding a provocative re-situating and alternative (shifting?) vision for the periphery of Moscow. The models are not ours to accept without question; contest is both implied in any monument of classification and re-classification. Consider Mr Sun's shaky position of the individual in contemporary China: does it provide immense opportunities for the improvement of living conditions of its inhabitants? Where does an energetic reform agenda lead; unchained cities, unchained melodies? Tearing down goes with building up. The message is easily decoded: we may need to self-build ourselves before we attempt to do the same to cities that have expanded seemingly out of control. If we are post-democratic, are we post-informational? Do our insights need super-glue? Only in our relations with these insights, with a listening' that can transcend protection do we realise a shy but essential wisdom: getting things done isn't the only way to get things done. This openness and current indecision surely should be given the chance to reach that simple but devastating conclusion. A conclusion that Moscow may need more than many of us know.

GUILTY AS CHARGED

It is over to you, dear reader. The peripheral in urban, architectural and critical terms is one of those concepts we can now see is attracted to and by association. Often pulled to the margins of society and structure; it cannot let go. It attracts poets, writers, filmmakers, drifters; they enter the transit zone that offers life its extra curricular richness. Periphery resonates with margin, with the residual and the liminal; that prosthetic limb that keeps an otherwise damaged body not only going but competing. The peripheral is replete with tension, dislikes words like 'replete'. Defined by graffiti rather than

gravitas. Defined by what it is not, the centre — the land that is not? The peripheral is not the centre but it might become that. And in a war-torn city like Beirut, the city shifts into its peripheries at all times. The peripheral is no longer only an escape, from the regimenting, the dominant, from congestion and overload, from the belly-full strategies of central organizations – cities and politics – exiled in the outlying areas, outlying in the outlying areas. Defining loss as strength, wasteland as opportunity, it is a rite of passage; throwing pooh sticks into the river and seeing which emerges faster – the city or the periphery.

In this sense therefore
a truly perfect fence
is one
that separates nothing from nothing
a place where there is nothing
from a place where there's also nothing.

“That is the absolute fence,” Holub completes his brief reflection on a fence, “similar to the poet’s word.” How would the reader become the redeemer — on this collection of cities, information and insights? In the lack of ownership of information there is power too, and whether we are bloggers, activists, government officials, architects, graffiti artists, journalists, businessmen or women, homeless or gated, we can and must weave our way through it. If this implies at the same time a re-reading for the first time (no longer a paradox today) then we must do that. Often guilty of wanting the poetic provocation to come out of the most ‘normal’ text and endless information about cities, peripheries and demographics, let us remain guilty but take responsibility for it. Separating nothing from nothing means the periphery is central to the very city that has so often tried to exclude it. This missing part, this outlying area, this (sub)urbanised, unbounded zone, this no-go land that used to be the periphery. No longer – the reader too must fight back: the edge has become edgier.

Think peripherally; time to come in! And out!
If you have a magic wand, then wave it, and do it well.



Buenos Aires



Washington D.C.



Mexico City



Jaipur



Cairo



Caracas



London



Madrid



Moscow



Bangsar



Mexico City



Johannesburg



Hong Kong



Mumbai



Sao Paulo



Buenos-Aires



Istanbul



Salt Lake City



Rio de Janeiro



Sao Paulo



Kibera



New York City



Seoul



Tallinn



Dubai



Gaborone



Houston



Panama City



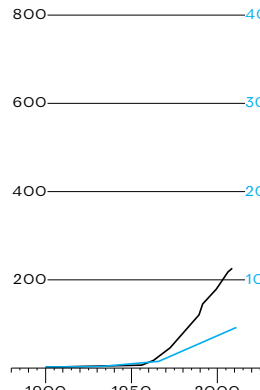
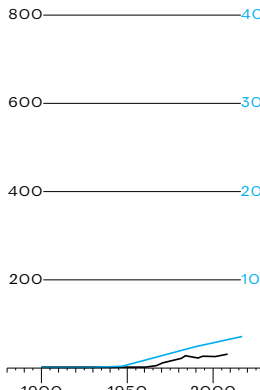
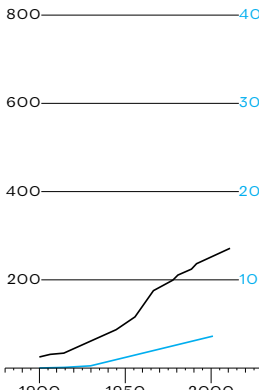
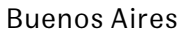
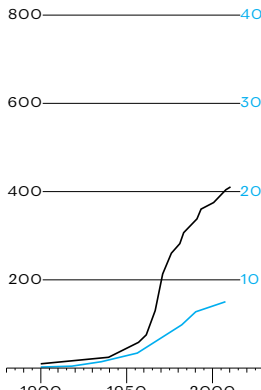
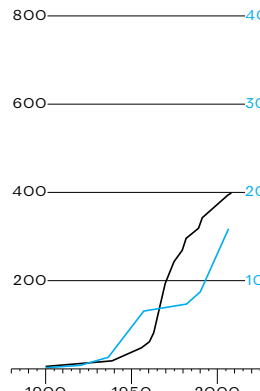
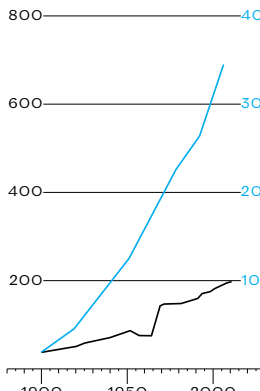
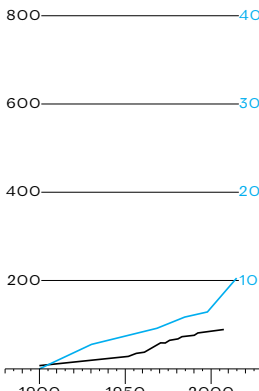
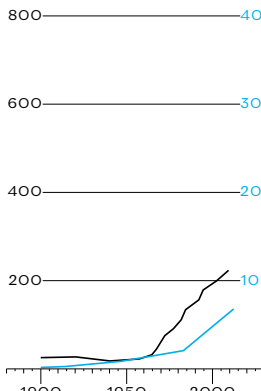
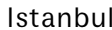
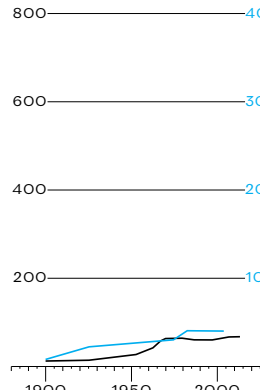
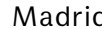
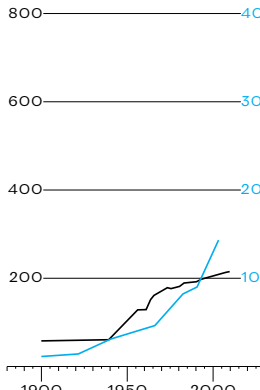
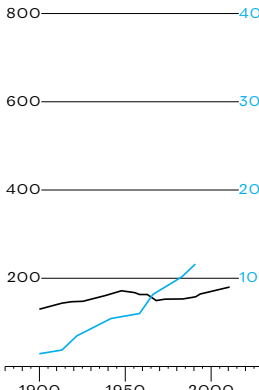
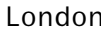
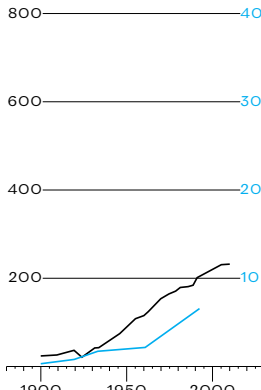
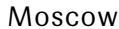
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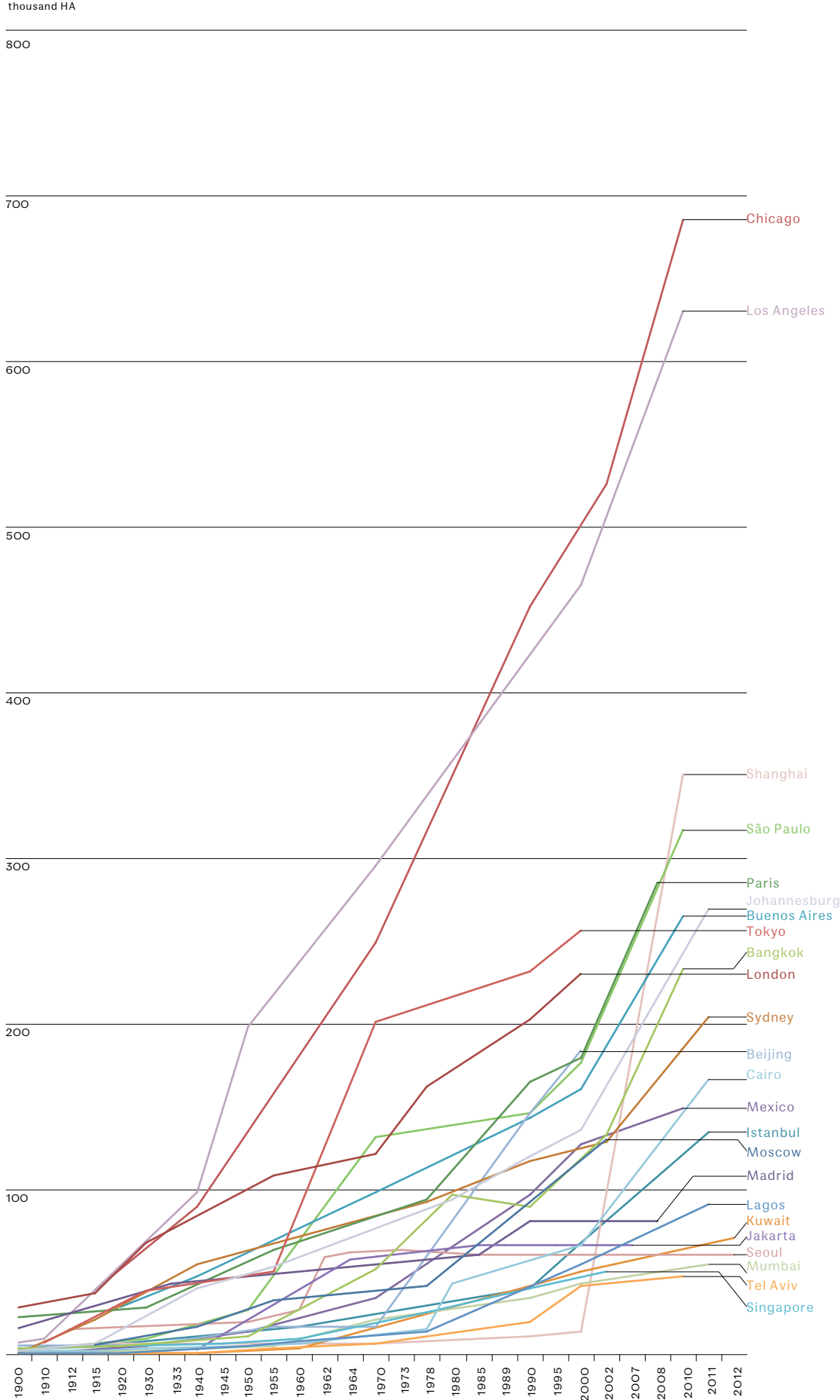
World Cities Growth

1900–2013



— Population density, mln.people
— Area of Urbanized Territory, thousand HA

Area
of Urbanized
Territory



Population density

MLN PEOPLE

40

35

30

25

20

15

10

5

1900

1901

1903

1905

1908

1910

1911

1914

1915

1918

1920

1921

1925

1926

1927

1928

1930

1931

1933

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2010

2011

2012

Tokyo

Mexico

Shanghai

São Paulo

Mumbai

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Cairo

Istanbul

Paris

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London

Singapore

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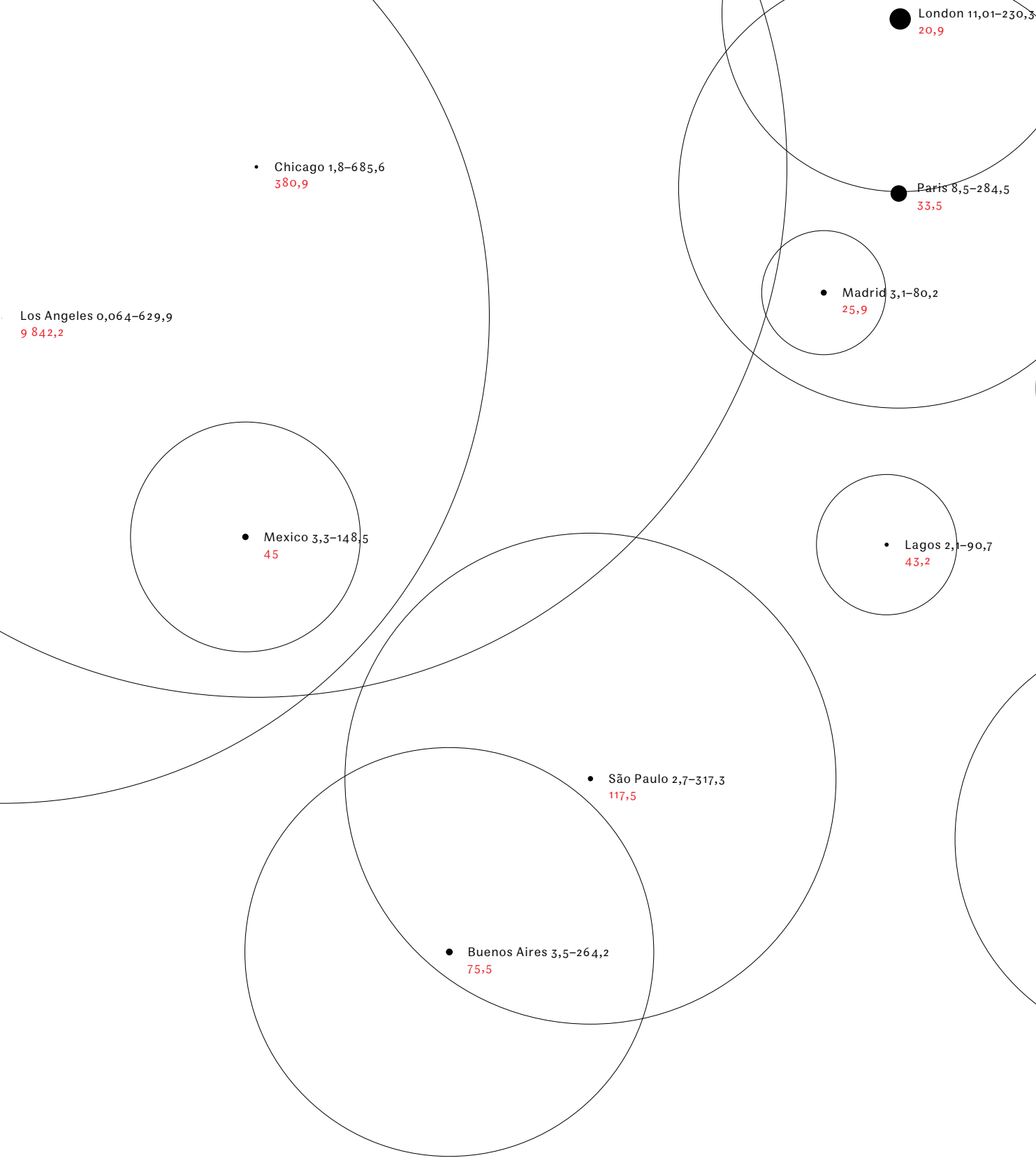
Johannesburg

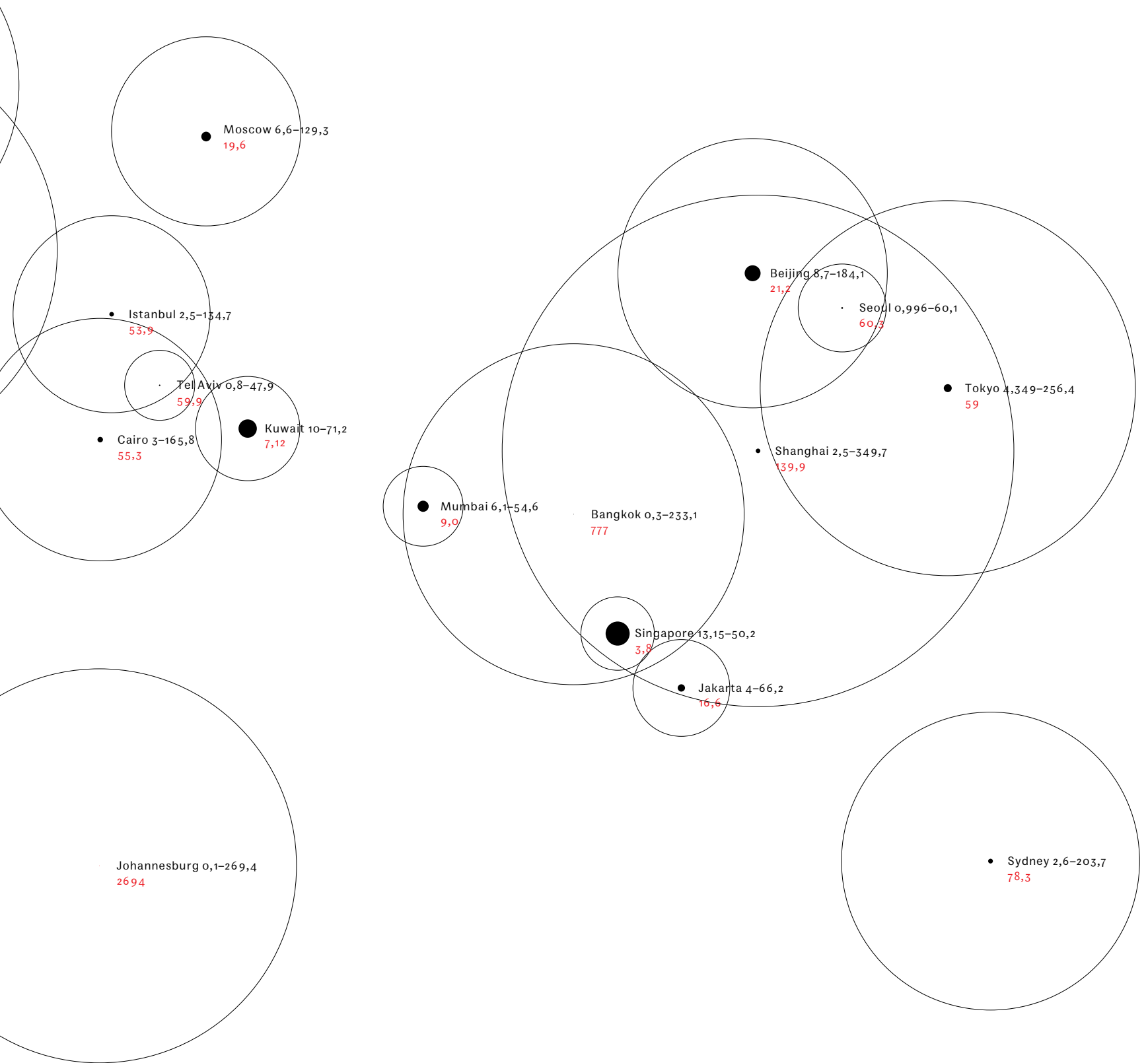
Madrid

Tel Aviv

Kuwait

Centre and Peripheral Territories





Research on city growth was based on the following data: portal Demographia (<http://www.demographia.com/>), Atlas of Urban Expansion Lincoln Institute of land policy (<http://www.lincolnst.edu/subcenters/atlas-urban-expansion/Default.aspx>), United Nations Department of Economic and Social Affairs, World Urbanisation Prospects, 2011 (<http://esa.un.org/unup/>), statistics portal EC (<http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home>), official and open city data portals (<http://jakarta.bps.go.id/>, <http://stat.seoul.go.kr/>, <http://data.london.gov.uk/datastore/package/historic-census-population>).

3,8 – Periphery Area Ratio (PAR)

○ Urbanized Territory

● Area of the Centre

Urban Revolution

Leonid Smirnyagin

Some two centuries ago, cities were still a rather rare phenomenon on our planet: approximately 3% of the population lived in cities, and by 1900 this proportion only rose to 12–15%. However, the 20th century saw a veritable urban revolution, and immediately after it, somewhere between the years 2010 and 2012, the proportion of the world's urban population rose to over a half. That was the end of the second urban revolution in human history (providing that the first one was the city formation in the river valleys of the Indus, Nile, Yangtze and Euphrates).

Nowadays, a new revolution is on the horizon: the rapid growth of cities particularly large in population size (i.e. with at least 500 thousand inhabitants). Today there are nearly 900 such cities in the world, with a total population of around two billion people, which is considerably more than a quarter of the world's population. The largest of these cities reach enormous sizes, comparable to entire states. Some thirty of them are considered “megacities”, as their populations are over 10 million inhabitants. It should be emphasized that this third revolution is taking over the whole world, not just developed countries.

Such cities, especially megacities, are new and unique environments. Basically, these are no longer simply cities as such, but entire agglomerations of neighboring towns with numerous municipalities, a complex system of work-related connections, and above all a wide range of social roles, which even the largest cities in the world could not provide up until now. It is rather difficult to find your way around and function in such environment, so the residents of these cities are indeed a new kind of people. They live in an artificial, man-made environment of a giant spatial size, which they navigate at an incredible speed. Each of them has a wide choice of activities and is used to dealing with a great number of people of a different lifestyle on a daily basis. Moreover, they find it easier to evade the administrative urges of the authorities. Medieval Europeans believed that “city air makes one free”; the air of megacities certainly does change people.

All this seems to be a celebration of urbanization, a chronicle of its inexorable course. Many authors praise urbanization as a symbol of human progress. Unfortunately, the third urban revolution has also caused a number of

problems. It is especially striking in Third World countries: Mumbai, Dhaka, and Jakarta are surrounded with dreadful slums; and it is mainly due to the sprawling of the slums that these cities grow. As a result, a glaring discrepancy is observable between the welfare of the citizens, which causes constant tension and conflicts and may lead to a total breakdown of social life.

In developed countries, the situation in the neighborhood of large cities is much better, but there still are many problems: segregation, development sprawl, soaring housing prices and profiteering, and also the increasing inequality of wealth, which starts causing distress in the West sooner than in the Third World. New York City, the largest American city, ranks first in terms of inequality: here, it is twice higher than the national average. Half of its residents have incomes below the poverty threshold or only slightly above it, whereas the richest 1% of the population accounts for over a quarter of the citizens' total income. The reason lies in the radical restructuring of the economy, typical for megacities. Industry here is almost entirely gone: in 1950 it generated one million jobs, and today it provides as few as 75,000.

But the main problem caused by the third urban revolution is the inability to manage the cities in the old-fashioned way: through municipalities. Today's major cities are enormous patches of solid development, usually called urban areas. Within these urban areas, the central city usually plays a small role. For example, the share of London's population in Greater London is 24%, and the population of Paris accounts for 19% of Greater Paris. Moreover, these percentages are reducing, as the population of central cities is generally decreasing. The remaining parts of the patches are multiple individual municipalities, competing with each other for human and other resources. Engaging them in serving the common interests of the entire urban area is a challenging and often impossible task.

This problem is aggravated by the fact that an urban area only represents a part of modern urban formation. It is only its morphological, so to speak, rendering. In reality, the economic, social, and cultural influence of an urban area extends far beyond its borders. Modern means of transportation allow work trips to dozens of kilometers away. Thus, agglomerations are created, with urban areas only covering approximately 15–20% of the territory. Thereby the number of interacting municipalities is increasing, and their interests differ even more.

Due to these dissimilarities, urbanization processes have flowed spontaneously and randomly for decades. Only in recent years, as negative effects became too widespread, have developed countries in the West begun actively searching for ways of managing the areas over the municipal

framework, so to say. The high road was some associations of local authorities on the federal or confederal basis. In the United States, for example, they are represented by planning commissions or committees where agglomeration municipalities have an equal or proportional representation for the solutions of common problems, for which they allocate parts of their budgets.

However, such cases are still rare; the powers of these committees are mostly limited to an advisory and coordinating role. So we have to admit that real mastering of agglomeration management is still a distant prospect.

Meanwhile, the absence of such management is increasingly affecting the fate of the municipal authorities. For example, the whole world heard of the notorious bankruptcy of the authorities in Detroit. The city that had a population of nearly two million in 1950 now has less than 700,000 inhabitants and almost 90,000 (!) vacant buildings. Over the past three years, 37 cities in the U.S. have filed for bankruptcy, and 20 more are preparing to do so. The problem here is not only the deficit of local budgets, but the inadequacy of the legislative regulations of urban development, which are obviously not ready for the changes brought about by urbanization.

Managing new forms of urbanization is the key issue of major city development all around the world; this management must be provided over municipal boundaries, across the entire agglomeration.

Meanwhile, new problems are starting to arise, complicating the search for appropriate forms of urbanization management. They are emerging at all the levels of this phenomenon: the city, the agglomeration and the regional level.

Major cities now occupy larger areas, which are becoming more and more diverse, depriving the city of its former unity. It becomes increasingly difficult to build a uniform development strategy for a city, not taking into account the features of its components. The concept of the historic heart of the city and the opposing urban periphery has become traditional, but in reality, the differences within the city can rarely be reduced to such a simple scheme. The situation is further complicated by the fact that the resident of such a large city tends to divide its territory into certain parts: immediacy is referred to as the territorial identity, and these parts are the so-called vernacular districts, i.e. parts of the territory existing in the perception of the citizens.

The second level sees the agglomerations as a functional unit. Unfortunately, city planners still mostly see the agglomeration as a morphological formation, that is, a patch of solid urban development. These patches are often identified with the help of satellite images, especially at night, when the glow of city lights clearly shows the outlines of the urban area. Obviously, this means lagging at least one step behind the real course of urbanization, and may lead to gross mistakes in the search for ways of managing the new urban forms.

“Suburbia” has existed in the developed world for more than half a century; it has transformed considerably and become more complex. The former strict focus of the suburb on the central city is now almost nonexistent; work trips have become a complex network with a variety of counter flows. In the depths of suburbs, far from the center city, the so-called edgencies have emerged. They are taking on many of the central city functions related

In different parts of the world, certain agglomerations that form a single labor market are beginning to aggregate. Edge cities render the interaction of agglomeration centers unnecessary: the relations between the edge cities of neighboring agglomerations are sufficient.

to the maintenance of the adjacent parts within the agglomeration, so that the agglomeration is beginning to disintegrate into small largely independent parts.

Finally, let us discuss the regional level. In different parts of the world, certain agglomerations forming a single labor market are beginning to aggregate. Edge cities render the interaction of agglomeration centers unnecessary: the relations between the edge cities of neighboring agglomerations are sufficient. These aggregations form extensive "fields" several hundred kilometers in diameter. These fields are so packed with infrastructure that the cost of transportation within such a field is near zero. The scope of these formations is almost an order of magnitude greater than that of agglomerations. They contain almost the entire range of modern production, and are largely self-sufficient. Thus an odd trend is developing, contrary to the logic of the past two centuries: the territorial division of labor is decreasing, since the major part of economic transactions is within these "patches."

Urban studies theorist Richard Florida revealed 40 such areas in the world, now known as "mega-regions." Their share of the world population is less than 20%, but they produce two-thirds of the world's GDP.

The emergence of mega-regions makes us reconsider our concepts of the territorial structure of the modern world: mega regions are socio-economic formations that are too large to fit into this structure. In this context, the findings of Neal Peirce, the author of "Citistates," are particularly noteworthy: "As economic actors, major U.S. citistates compete in size with major world nations. In gross product, the New York region ranks 13th among the world's top economies, just ahead of Australia, Argentina and Russia. The Los Angeles citistate is bigger than Korea, Chicago greater than Taiwan or Switzerland." Precisely these structures, according to Peirce, are forcing us to change the traditional paradigm of modern world division, "federal-state-local," to a new one "global-regional-neighborhood."

There is reason to believe that the new mega regions mark a new, even higher level of urbanization, a stage in the "settlement-city agglomeration-mega region" chain. The need to reach this stage is particularly disturbing: history is already urging us to explore new forms, while our government, urban planners, and the society itself have not yet learned to control the forms of the previous stage.

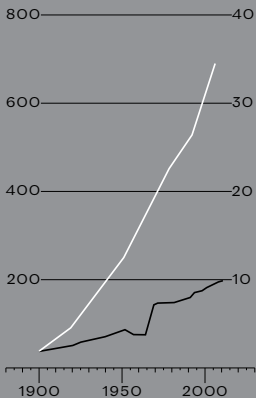
Chicago

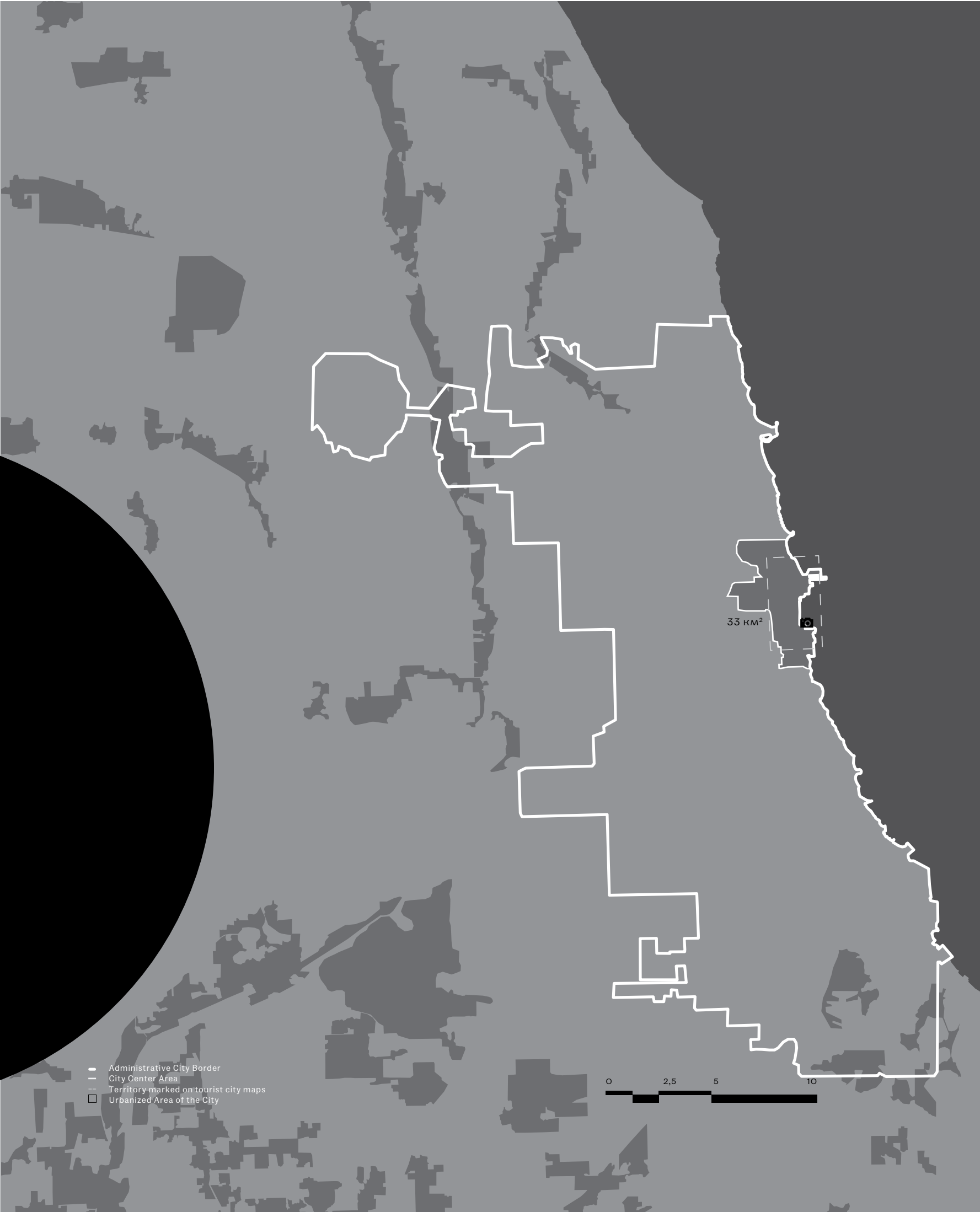
9.68 MLN PEOPLE. 68560 HA



• 1,8 - 685,6

380,9 **PAR**





33 km²

- Administrative City Border
- - - City Center Area
- ... Territory marked on tourist city maps
- Urbanized Area of the City

0 2,5 5 10

Retrofitting North American Suburbia: Tales from Chicagoland

Ellen Dunham-Jones

If Chicago is the quintessential American city, Chicagoland is quintessential American suburbia. In 1926, the editor of the Chicago Tribune coined the term “Chicagoland” to refer to the network of railroad towns, villages and farms that spread in a 200-mile radius from the growing downtown. The term continues to be widely used today in reference to the vast flat suburban terrain that has largely engulfed the earlier settlements in post-war waves of lower density development, expanding further and further into the periphery. Today, much of that suburban landscape is aging. Dead shopping malls, vacant big boxes, out-of-date office parks, shuttered industrial sites, dying commercial strip corridors, and acres and acres of under-utilized parking lots are being retrofitted into more sustainable places. What’s driving the different retrofit strategies? How do the suburban retrofits of Chicagoland compare to national retrofitting trends? What lessons from both might the growing global middle class learn about the unintended consequences of suburbanization? Should we be careful what we wish for?

The iconic North American suburban landscape of detached houses perched on individual lawns provided generations of families an access to “the American Dream”. The default model of affordable housing has been “drive ‘til you qualify” to the cheap land at the ever-expanding exurban edge. But it evolved during decades of access to cheap oil, cheap credit, cheap water and cheap farmland. While it has produced many beloved and prosperous neighborhoods, higher costs for all of the above, and growing awareness of suburbia’s unintended consequences, have challenged its long term viability. The savings associated with cheaper houses on the edge - in the periphery - are increasingly eaten up by rising transportation costs. Similarly, energy costs have doubled in the past decade and detached buildings are pricey to heat and cool. These costs have contributed to the rapid rise in the suburbanization of poverty.

Contrary to the stereotype, since 2005 more Americans in poverty have lived in suburbs than in cities or rural areas. Municipalities are feeling the pinch as well. Delivering roads, utilities, school buses, garbage trucks and emergency services costs considerably more per household at lower densities than it does in compact areas. Only a fraction of the life-cycle maintenance costs of that infrastructure are covered by residential property taxes, causing some to argue that suburbia is essentially a Ponzi scheme and creates a false appearance of wealth. Nor do shopping malls, big box stores,

and office parks deliver tax revenue that come close to that provided by urban multi-story buildings on a per-acre basis. Chicagoland displays all of these characteristics: a 2001 study of decentralization's impact on its municipalities concludes that sprawls appear to have produced more fiscal "losers" than "winners". Quite simply, suburbia is not economically sustainable. The costs of sprawling suburbs on public and environmental health are also unintended and unsustainable. While Americans tend to think of the suburbs as leafy and cities as paved, on a per-capita basis suburbia consumes far more land for asphalt in comparison. From 1970–1990, Chicago's population only increased by four percent, but its urbanized area grew by 47%. In other words, density dropped almost in half in just 20 years. Jobs were decentralized at this time as well. Between 1972 and 1995, the city's share of total metropolitan employment fell from 56% to 34%. Despite this high rate of land consumption, the greater region is still approximately one-third farmland.

Given the unforeseen fallout from suburbanization, it is easy to understand why planners and designers viewing the issues from 30,000 feet might propose the need for retrofits. But is change actually desired on the ground? Somewhat surprisingly, the increasing answer is yes. One third of U.S. enclosed shopping malls are dead or dying. Vacancy rates at strip malls (10.5%) and in suburban office buildings (18% nationally, 24% in Chicago) have been at the highest rates since anyone started counting. No one really knows just how many empty big box stores there are. Leapfrog development for the past fifty years has gradually robbed older suburbs of market share by enticing consumers to the newest malls and subdivisions ever further out. However, it has also given them something incredibly valuable – a relatively central location in their now larger metropolis and the opportunity to become a more urban destination should they so choose. While surface parking lots made sense when they were first built on the cheap land at the edge, with a more central location with abundant existing infrastructure, it often makes sense to build parking decks and to build upwards with greater density on top of all of the "underperforming asphalt."

Slightly more than half of the U.S. population live in suburbs but although the common perception is that suburbs are family-focused, that's not in fact who lives there. U.S. census data shows that since 2000, two thirds of suburban households have not had children in them. Census demographers predict that through 2025, 80–85% of new households in the U.S. will not have children. The reason for this is that neither of the two large demographic groups – the baby boomers and Generation Y – are in prime child-rearing years. The baby boomers are just starting to retire; most are empty nesters, still live in the suburbs, and most hope to age in place. However, they do not wish to become their parents and their view of retirement is not a quiet retreat on a cul-de-sac. 70% of Gen Y say they wish to remain in an urban place even after they've had children. However, the majority of jobs remain in the suburbs. As a result, Gen Y has joined the baby boomers in

forming the bulk of the market for retrofits that provide urban amenities in a suburban location.

As with the rest of North America, these factors have resulted in Chicagoland producing a wide range of types and sizes of suburban retrofits. The first generation of retrofits beginning in the early nineties and continuing today tended to be developer-led, single-parcel redevelopments on the cheap land of the first ring suburbs. Chicagoland's "Purple Hotel" redevelopment is one of dozens that displays many of these characteristics. Built in the suburb of Lincolnwood in 1960, the modernist box with distinctive purple brick infill panels was surrounded by parking lots on its 11-acres. (See Figure 2.) Over time, it went from glamorous to seedy. During the recent recession the momentum in retrofitting shifted to the public sector. Federal planning grants (as well as the lull in developer activity) helped municipal planning departments become much more pro-active about revitalizing suburban corridors with transit, updating their zoning to enable mixed-use, compact development, and leveraging their publicly-owned land and resources in complex public-private partnerships. Non-profits, business improvement districts, and foundations have also emerged as important players in accelerating retrofitting.

So what do retrofits look like? June Williamson and I find it useful to categorize the growing number of retrofits in terms of three basic strategies: reinhabitation, redevelopment and re-greening. Market conditions determine which strategy is appropriate. The most satisfying retrofits mix and match these approaches by creating places that connect us to the past, to the future and to nature. Reinhabitation involves modest reclamation of public space or adaptive re-use of suburban properties with more community serving uses. Street art on vacant walls and tactical urbanist interventions in vacant lots and buildings, such as those by the Build A Better Block team have been great accelerators of more permanent investments and revitalization. At the building scale, the availability of cheap space in commercial buildings can enable non-profits, low-profits, mom-and-pop and entrepreneurial start-ups to get a foothold and make for a more complete community than the retail uses alone which dominate in new construction. There are scores of examples of former big box stores and strip malls retrofitted into schools, libraries, neighborhood restaurants, gyms, incubator offices, government offices and medical centers.

Many of these new uses create "third spaces." Sociologist Ray Oldenburg coined the term to describe places in which a community is built. If home is the first place we gravitate towards and work the second place, third places are where we go for creative interaction. It might be the neighborhood pub, the hair salon, Main Street, the market or the megachurch. Suburbia in general has a dearth of third places. Built around families, the assumption has been that social life in the suburbs revolves around the schools. However, now that the majority of households no longer have children in them, more and more retrofits are including spaces that either formally or informally encourage socializing. Several enclosed shopping malls outside of Chicago have been reinhabited in ways that demonstrate the incorporation of different kinds of third spaces and responses to different market demands.

The most dramatic has been the demalling of Park Forest Plaza into a traditional, mixed-use Main Street. An innovative regional mall from the early 1950's, Park Forest Plaza arranged three anchors, shops and some civic uses on 48 acres around an open air pedestrian mall and served as the

centerpiece for the new planned community of Park Forest, 29 miles east of Chicago. It was renovated in the mid-1980s. However, its central location in the community instead of on a highway limited its ability to compete for regional customers as newer malls opened up closer to highway exits. It was dead by 1995. Finding no one else interested and lacking anchor tenants, the village of Park Forest bought the mall and has been downsizing it to be more local-serving. Instead of a mall, it is now the Main Street they never had, with low-speed streets running through it.

Instead of scaling down, the next case study involves scaling up. Pastor Jim Winston is said to have started the Living Word Christian Center in a Chicago storefront with \$150 and 20 members. When his congregation grew he looked for a bigger cheap space and found it ten miles from the city in the Forest Park Mall. The 400,000 square foot mall had opened in 1983 and was a retrofit of a torpedo factory. With a competing mall nearby, it never filled to capacity and in 1997 the Living Word Christian Center bought the blighted mall with a \$13 million mortgage and reinhabited a former home improvement anchor space. Today the megachurch accommodates its 17,000 members in a 3,500-seat auditorium carved out of the mall's former movie theater, operates a business school in the basement, and manages the now outward-facing retail that includes a grocery store, a Kmart discount department store and several other small shops. Reinhabitation of existing properties can be very effective at building social capital and social sustainability. By replacing chain stores with more local activities they also help to relocalize the place and people. However, to achieve the triple bottom line of sustainability in suburban retrofits requires more substantial redevelopment, densification and urbanization.

Redevelopment retrofits often mix and match the following strategies: linear buildings that screen parking lots; single properties redeveloped into more pedestrian-friendly, street-facing formats; office parks infilled with residential and retail; transit, bike and pedestrian infrastructures inserted into edge cities and other suburban nodes; replacement of surface parking lots with parking decks; insertions of walkable block structures and street networks onto superblocs; transformation of park-and-ride transit stations into mixed-use transit-oriented developments (TODs); the integration of road diets, transit and bike lanes into suburban corridors and arterials. The most vivid before-and-after contrasts occur when these redevelopment strategies are employed to urbanize sylvan, green, suburban golf courses. Forty-three of them are in various stages of redevelopment into various uses throughout the U.S. 34 miles west of Chicago, Buffalo Grove is reviewing CRM Properties' proposal to demolish its municipal campus and convert 65 acres (nine holes) of its 18-hole publicly-owned golf course, into a mixed-use downtown centered around a community park.

Corridor retrofits achieve similarly dramatic results by becoming more pedestrian and bike friendly – and inducing new, more urban patterns of redevelopment in the process. In these cases, urbanizing the corridors often means adding rather than removing trees and plantings. The Roosevelt Road Streetscaping project is one of several throughout Chicagoland and one of hundreds throughout the U.S.. It also added benches, sidewalks and crosswalks, innovative lighting, public art, benches, trash receptacles, signage, on-street parking and bus stops to a 1.5 mile corridor linking three Chicago suburbs: Oak Park, Berwyn and Cicero. The public investments improving the quality and walkability of the auto-oriented corridor is intended to stimulate private investment in the vacant blocks and deteriorating buildings. A form-based zoning code was adopted along the corridor to require that new development creates a predictable and pleasant pedestrian environment. Opened in 2012, the corridor has attracted attention to its walkability with a Facebook page, an annual winter holiday stroll and an annual zombie pub-crawl at Halloween.

Chicagoland's extensive railway system and large subway network is second in size in the U.S. only to New York City. This has resulted in a particularly high number of TOD opportunities and redevelopments at suburban stations. Most of these introduce mixed-use residential on to former park-n-ride lots or other adjacent properties, such as the car dealerships and low rise commercial buildings that used to form a “no man's land” disconnecting the Park Ridge, Illinois Metra Station from the town's historic downtown. Today, a mix of privately developed condominiums and rowhouses, retail and restaurants wrap around two attractive public plazas to welcome people to and through the 6-acre Uptown Park Ridge redevelopment.

An important new model is the combination of TOD and COD, or Cargo-Oriented Development in Harvey and Blue Island, severely disinvested manufacturing hubs in Chicago's south suburbs. The old industries have left but as gas prices and interest in more sustainable transportation rise, freight is making a comeback. COD recognizes that the areas' numerous rail lines, expressways, intermodal terminals and underemployed labor pools are assets for revitalizing new clusters of manufacturing and logistics businesses around more efficient cargo movements. When paired with TOD, workers get greater access to jobs and access to pedestrian-friendly communities that connect affordable housing with affordable transportation. What began as a pilot project in two communities has become a sub-regional redevelopment project engaging 32 communities called the “Green Transit, Intermodal, Manufacturing and Environment (TIME) Zone.” Public, private and nonprofit organizations throughout the Chicago region are now investing millions of dollars into the plan to put people back to work, preserve housing near transit, link industrial and logistical growth to intermodal assets, encourage green manufacturing and improve environmental outcomes. The third strategy is re-greening: retrofitting under performing suburban properties into parks, community gardens, daylit creeks, reconstructed wetlands or forest. It is often employed in weak markets where densification is unlikely to work or in areas where we never should have built in the first place. But, it is also a means to provide a community open space around which greater density and urbanization can comfortably occur. This was the tactic applied by the masterplan for the revitalization of the small town of Normal, Illinois. An awkward 5-way intersection dominated by cars and difficult for pedestrians to cross was retrofitted into a sustainable showpiece with a much-improved public realm. The new

intersection now links the town to a new Amtrak high-speed rail station, a new children's museum and new mixed-use and retail buildings.

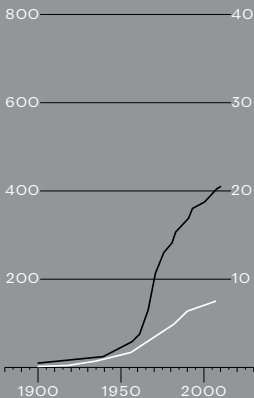
The City of Chicago has been a leader in innovating and integrating green building practices in the U.S., especially through its green roofs program. More recently, in 2011 the city adopted an urban agriculture amendment encouraging the building of community gardens and urban farms in clearly defined conditions. But one of its more surprising farms doesn't even need this zoning. FarmedHere LLC is the largest vertical farm in the U.S. It operates out of the retrofit of a nondescript, 150,000 square foot, mostly windowless suburban warehouse in the suburb of Bedford Park. Attracted by the incentives of the nearby TOD and COD, the farmers benefit from a central location that speeds delivery time of their harvest. The facility uses artificial light and stacked tiers of hydroponic and aquaponic beds to grow organic, pest-free basil, arugula, other greens and fish.

The Mayor of Chicago and the Governor of Illinois collectively announced Chicago's most ambitious retrofit of all in late 2011. The Millennium Reserve will regreen 140,000 acres of the Calumet region as part of President Obama's Great Outdoors Initiative. This is intended to serve as the biggest urban park in the country and lies in the heart of Chicago's suburban southland. It is home to coastal wetlands and lakefront parks and trails, many of which are in need of removal of invasive species and other forms of clean-up. It is also home to massive steel mills and heavy industrial infrastructure. The plan calls for respect for the cultural value of the industrial heritage but also for ecological reconstruction. Is Chicagoland more affordable, healthier and more sustainable as a result of its retrofits? Yes – but it still has a long way to go. The region is becoming more polycentric as suburban nodes intensify around the old train stations. The post-industrial knowledge-based economy is less polluting than the belching smokestacks. There are more locally grown food, more bike lanes, and more opportunities to engage in physical activity. But the retrofits don't erase the sprawling infrastructure that still supports heavily auto-centric lifestyles.

What lessons can Moscow and other global metros learn about suburban retrofitting from Chicago? Certainly that the role of the public sector cannot be underestimated in stimulating large retrofits – whether they involve re-inhabiting a dying mall, redeveloping station areas into TODs, or regreening vast swaths of contaminated industrial lands. However, the private sector also plays a strong role in retrofitting. The 17 Community Improvement Districts in Atlanta are consortiums of commercial property owners who self-tax in order to provide the matching funds for retrofit planning grants and capital improvements. Developers from Dallas to Toronto and D.C. to Vancouver are more eager than ever to find the redevelopment sites that would allow them to meet the new market. Will Moscow raise the design bar further as it re-examines its periphery? If there is a cautionary tale, however, it is to those around the world who seek to emulate American suburbs – be sure to look toward the retrofits rather than at yesterday's model.

Mexico City

20.45 MLN PEOPLE. 14850 HA



45 PAR





- Administrative City Border
- - City Center Area
- - Territory marked on tourist city maps
- Urbanized Area of the City



The Peripherization of Mexico City

Christian von Wissel

Prologue

I will briefly demonstrate the currents and crosscurrents that channel Mexico City's urban transformation at the time of writing. The focus will be based on territories of the city that can be described as its periphery: the material and social geographies that are subject to, in conflict with, or left in oblivion, by 'centrality and its movements.' Furthermore, I will describe the tendencies of urban change by framing them as competing concepts that are both specific to Mexico City and, at the same time, allow us to draw comparisons to urban agglomerations elsewhere. Developing these concepts, I propose bringing the geographical, sociological and anthropological perspectives together in order to arrive at a more complete, yet certainly also more complex map of the city's transformation. This is not to gloss over problematic issues such as waste disposal, water supply, traffic, air quality, social marginalization and displacement, or environmental risks, but to concentrate on the underlying forces that bring about their materialization in urban social space. Taken together, the tendencies for change in Mexico City can be described as the city-region's comprehensive peripherization, a process that leads to the formation of an essentially different type of city, in which the periphery is increasingly substituting the city as the dominant everyday experience and common denominator of the urban imagination.

Tendencies of Change

The city, according to David Harvey, has to be regarded as process rather than as thing. With this in mind, it becomes apparent that when describing a city, it can only be the description of urban change. Yet this change is not a single cut following any clear narrative. On the contrary, it is an array of processes, pointing in multiple directions, while being entangled on multiple scales. The city, then, is a kaleidoscope of tendencies of urbanization, as well as the site of their conflict; and Mexico City, surely, takes both perspectives. It is no exception, but also a fine example. On the frontier of both citification and urbanization, that is, in the 'peri-urban continuum' (where the urban is central in the process of becoming both in material and in cultural terms), is where the future of Mexico City is currently under dispute.

Rather than 'a city', the 21st century Mexico City is an urban agglomeration extending over some 1,600 square kilometers of continuously built-up land covering extensive – and continuously expanding – grounds consisting of five former lakes as well as of a small island – where the original city happens to have been founded by the Mexicas/Aztecs and re-founded by the Spaniards in the 14th and 16th centuries. Today this urban region spreads over three federal entities: the Federal District – the administrative entity that contained the entire city called Mexico until its 'explosion' mainly between 1950 and 1980 – as well as the two federal states, the State of Mexico and Hidalgo. Nevertheless, Mexico City is also contained within one single, although certainly over-spilling valley, which is why it is denominated as the Metropolitan Area of the Valley of Mexico (ZMVM). This urban/urbanizing valley is what we refer to when we talk about Mexico City being a city of twenty million inhabitants.

Incomprehensibilization.

The first tendency of change describes the cultural implications that emerge in a city in the process of taking over more and more of any territory and \ to hold on to it. Metropolitan and megalopolitan Mexico City forces its inhabitants to deal with the increasing incomprehensibility of their environment. The formula goes something like this: proximity squared by distance times diversity squared by its simultaneity, both of these divided by everyday life. Hence, coming to terms with the sum of such an 'urban unfathomable' has become an essential aspect of life in Mexico City. Looking at the population numbers and ethnic and cultural diversity of the Central American subcontinent, the anthropologist Nestor García Canclini refers to the ZMVM as a "city-continent" in order to describe the "heterogeneous multitude of zones, neighbourhoods, journeys and experiences offered by the urban ensemble."

Metropolitanization.

With regard to these multiple zones and journeys, the second tendency of change becomes apparent on the geographical level of urban/urbanizing affairs in the valley: the physically and demographic expansion of the city into the region. Over the past decades, the four inner city boroughs have lost up to 50% of their population, while municipalities such as Ciudad Nezahualcóyotl, Ecatepec, Tecámac and Ixtapaluca, located in the State of Mexico and Hidalgo, have accumulated the highest population figures and growth rates of the region. This way, the ZMVM has seen the transference of its population density from the center to the periphery. According to the last census (2005), 'only' nine million inhabitants lived in the Federal District while the remaining eleven million lived in the neighboring two states. This shift from city to region has been addressed as Mexico City's 'metropolitanization,' a process in which the main city is intensifying its

functional influence over its equally expanding hinterland, together with setting off peripheral urban growth, as the result from “centrifugal flows from the metropolitan core”.

Diffusion.

Yet this is not the whole picture unfolding on the ground of the ZMVM's peri-urban continuum. Increasingly, urban restructuring also shows the pattern of ‘region-based’ as opposed to ‘city-based’ urbanization. This tendency to expansion is challenging the clear-cut direction of development from inside to outside. As a consequence, it gives rise to the formation of what has been called the ‘diffuse city,’ an urban system now increasingly blurring the boundaries between city and hinterland, centre and periphery, not only in territorial and functional terms, but equally in terms of our understanding of the city as such. The land-use pattern of this emerging regional city of the valley of Mexico is increasingly characterized by a heterogeneous mix of urban, suburban, peri-urban and rural conditions where industrial and agricultural territories are tied into the urban/urbanizing composition, much as military zones, wastelands, and ecological reserves.

Sub- and Counter-Centralization

Despite, or rather, because of the dynamics of diffusion, social geographer Adrian Aguilar considers this new regional city to be developing new forms of centrality in their own right. In the current transformations of the ZMVM, he identifies tendencies also of re-, sub-, and counter-concentration: tendencies, which produce and reproduce centers and peripheries of various scales and scopes. In accordance with centrifugal dispersion, this sub-centralization takes the form of “polycentric islands” and “linear developments of higher densities.” These morphological re-concentrations of the urban landscape also become apparent in economic and cultural terms: either in the proliferation of commercial nodes, ‘centers’ more like in ‘shopping centre’ than in ‘civic centre’ – although this second category does also persist in historic villages that are drawn into the urban system – or in form of sub- and counter-cultural sites of resistance, as in the case of Valle de Chalco, for example, a municipality located in the far southeast of the valley.

Fragmentation.

The diffuse regional city, therefore, is not a process leading to entropy, black and white fading out into egalitarian grey. Rather, its dynamic of increasing differentiation of centre-periphery relations and the simultaneousness of the contradictions they entail is that of a scattering, not annihilation, of urban functions, elements, groups and forms - their concerns and conflicts - and of the concepts by which to address them. The diffuse city is blurring conventional distinctions between what ‘the city’ is and what it is not, yet it never ceases to be a city of very tangible divides, with competing socio-physical fragments increasingly differentiated by territorial disintegration, multi-directional expansion of its parts and the proliferation of social borders.

Multi-directionality.

The first of these (sub)tendencies inherent in fragmentation is the deficiency of shared urban visions and inappropriate governance. The ZMVM is composed of 76 boroughs and municipalities located in three federal

entities. Together with the country's central powers, which are also located in the city, all these levels of government do not only act as agents of its change, but change it in multiple directions. "Hence, legislation, planning and urban taxation (tax on property) barely have any common ground," the geographer Alfonso Iracheta affirms. The resulting competition in directing the processes of urbanization between the region's parts leads to the situation that the policies of one body are often made redundant by one another. Examples of this abound on all scales. We find them in the incomplete installation of street lighting in a neighborhood caught up in the quarrels between two municipalities (where one municipality installs the street lamps while the other declines to connect them to the electricity grid); we find them in competing and often contradictory legislation in regard to urban development and, for example, in the environmental management of the valley. We find another example even in the birth of a 'political valley,' the so-called 'Valley Cautitlan-Texcoco' - located inside the Valley of Mexico — yet aiming at implementing partial policies of urban planning in those territories of the urban region that belong solely to the jurisdiction of the State of Mexico.

Segregation.

Socio-spatial segregation is the second of these (sub)tendencies of change that come with the multiple divisions and directions in a fragmented city and society. Polarized in overall terms by a wealthier western and a poorer eastern part, the clear-cut distribution of Mexico City's population gives way to a much more heterogeneous picture at the scale of the urban region's uncountable neighborhoods. Where cities vanish, gated communities and privatized streets emerge. As a result, urban life is increasingly taking place behind fences and walls and under the surveillance of security guards and CCTV.

Financialisation.

Observing the commercial developers in their production of urbanization, we can identify another key tendency of change playing out in Mexico City. In contrast to the dominant informal and self-built housing production of former decades – making up some 40% of all the city's built-up land – this production mode is now being challenged by a new type of urban development: that of formal mass-produced row houses, which by 2005, reached numbers equal to those of the production of self-built housing, both delivering about 100,000 units per year. This new mode of urbanization is the result of the increased financialization of Mexico City's urban economy and landscape. By entering the North America Free Trade Agreement (NAFTA) in 1994, and having successfully deregulated communal farmland two years earlier, large swathes of land in the Mexican ejido system of shared land ownership became the object of desire of international finance in search of capital surplus production. The noteworthy shift here lies not in the urbanization of these lands per se – they have been squatted or illegally sold and

subdivided for informal developments before, too – but in the shift in the goals of urbanization.

Residualization.

With the rise of the gated community, as the product of segregation and commercial ‘island urbanism,’ a new type of micro space has also emerged between more or less fortified enclaves. I suggest addressing these social-physical urbanization gaps by using the term ‘border spaces’ (*espacios limítrofes*) to mark the social distinction between groups by the physical distance between their territories. In their material appearance, they are best described as wastelands, as spatial leftovers or, simply, as residual space. In their social function, however, they are very diverse sites, active or passive, of low or high intensive conflict as well as spaces of possibility and openness for new and contesting ways of navigating the city. Border spaces abound in the segregated city, not least because of two out of several “undesirable” characteristics of diffuse urbanization, as Adrian Aguilar has lamented: “poor land-use patterns and growing vacuums of law.”

Exceptionalization.

This growing vacuum of law that Aguilar identifies calls for our alertness. On the one hand, it produces spaces where possibilities grow. This space is the wide field of informality, yet certainly not of illegality. It presents itself as a realm of opportunities, but one that comes at high cost. Rather than a vacuum of law, this framework for action is based on a ‘legal system of exception’ in which subjects are held in extralegal relations of clientelism and corruption; a replacement for a formal rule of law. On the other hand, the vacuum of law also produces ‘proper’ spaces of illegality: spaces where instead of formal rule, criminal rule becomes the law. At times where trust in authorities, especially in the police, is reduced to zero and criminal activity is high (mainly burglary, drug dealing and kidnapping of which the latter two are related to the activities of several of the Mexican mafia cartels), society is atomized and people are left alone and vulnerable.

Responsibilization.

Hence, where formal policies do not reach, whether on purpose or not, or where their powers to hold people in relations that make them governable are challenged, we encounter highly flexible and mobile ways by which inhabitants tie their lives to the movements of their city by taking responsibility for themselves. Informality, thus, does not appear as resistance, creativity or even the freedom of action of free citizens as often considered but as the responsabilization of subjects that have been left alone by the state.

Democratization.

A countercurrent to the exceptionalization of legal and citizenship relations and the responsabilization of subjects is the next change tendency we can identify having its effect on the central Mexican valley. This is the ongoing process of democratization: very slowly indeed, and hindered again and again by serious drawbacks but nevertheless opening up new spaces of participation throughout the region. We can find examples on all scales: in the only-recently acquired sovereignty of the municipality of Tecamac over its local development plan, as well as in the creation of a number of cultural and arts-and-crafts centers, called ‘FAROs’ (factories of arts and crafts, or “lighthouses”) that allow young people to explore and claim their rights of citizenship.

Consolidation.

The last tendency I would like to highlight is the process of metropolitan integration. The dispersion of people and functions, inevitably, comes paired with the proliferation of ties, and issues, that hold and bring them together. Movement and its materialization proffer an example of the relation between core and periphery. At the Indios Verdes interchange, for example, one can witness how a multitude of intercity, intra-city and inner city buses, coaches and minivans integrate with different transport networks, organizing passenger flows across the Federal District-hinterland border; against all political obstacles faced. At the same time, at the Buenavista train station one can see how the opening of a first suburban train line in 2008 has reduced travel times from centre to fringe from about one and a half hours by bus to 25 minutes by train. A disconnected system in the State of Mexico, these infrastructure projects nevertheless mark the path towards the consolidation of the valley as a dispersing, yet slowly integrating urban agglomeration.

Compact Peripherization.

Drawing conclusions from the multiple and contradictory tendencies of urban change in the valley of Mexico outlined above is, of course, an impossible task. The city as process composed of numerous processes resists any attempt of containing it on ground or paper. Notwithstanding, we can locate this array of currents and crosscurrents in lived and shared space and describe the overarching experience they produce in those who cause and/or are caught up in their dynamics. To describe this experience, the writer Juan Villoro refers to his hometown 'simply' as being a case of "horizontal deception," where neither the name 'Mexico' nor the term 'city' are actually appropriate, because what they refer to is not only many cities, but each disintegrating within the contours of the other. The decisive result of such 'fraud' is the 'dizziness' it produces, by means of its many and paradoxical movements of urbanization. Adapting Canclini's notion of the unfathomable to the topographic condition of the valley, we can therefore argue that Mexico City is a continent in a nutshell. Adapting Villoro's notion of horizontal deception, we can argue that the regional city of Mexico is a process of compact peripherization.

Neza York: From Slum to Slim Nezahualcoyotl, Mexico City

Felix Madrazo

Once the concept of periphery is considered obsolete, it is possible to recycle it, to convert the preposition 'around' into a theoretical proposition that gives a number of new twists to the concept and explores its possibilities.

Not many informal or irregular settlements get out of their dead-end cycle, let alone become successful, which is why it is imperative to look more closely at the sequence of events that turned the peripheral slum and no-go area of Ciudad Nezahualcoyotl (in short, Neza) in the periphery of Mexico City into a highly urban territory that nowadays attracts investors and inhabitants of all types.

How do transformations occur when cities mutate from emergency settlements into consolidated urban cores? The notion of the center vs periphery in cities became problematic at the point where cities were unable to deal with sudden contradictions. When normal peripheral conditions began to appear in the city center, with vacant plots and the presence of the poor, there was an uncertain demographic future. The outskirts of the city suddenly turned into urban nodes. Can we try and understand this from a different perspective? The idea of 'developing countries' helped single out certain countries that were beyond 'second' and 'third' world categories. The term 'tiger economy' was used for countries like South Korea, helped to benchmark a country and its performance vis-a-vis developing countries. In urban matters, concepts that deal with time and mutations, defining places beyond their geographical location, are still scarce. Neza's success in Mexico City is a combination of the stubborn struggle of its inhabitants to gain the attention of successive governments, power emanating from their sheer numbers, solidarity and concentration. Its specific 'suburban' street typology, in the form of a grid, has helped spread the benefits to all parts of the city. What then are the secret ingredients of this Mexican urban miracle?

Nezahualcoyotl. a.k.a. Neza York

Nezahualcoyotl, also known as Neza York, is in no way close to Manhattan's city profile. Yet in terms of population density the city of Neza indeed could be read as if a horizontal skyscraper. Its urban layout is spread evenly, around 10 x 4 km in a regular gridded network, and contains one of the

largest and densest low-rise cities in the world. It has a population of 1.11 million in an area of just 4,190 ha; a density of 264 people per hectare. The densely populated Randstad in the Netherlands with a density of 83 people per hectare, or urban Paris with 70 people per hectare, are well below Neza's density. The borough of Manhattan, one of the densest urban areas on earth, with 273 people per hectare, is almost equal to Neza. This density is remarkable as most building in Neza average only 2 storeys. The block size is also remarkably similar to New York dimensions; most of Neza's blocks are 220 x 35 m, while in Manhattan they are of similar length, but 20 meters wider.

Neza also shares something else with New York: the exuberance of its architecture. In Neza this is represented by 285,027 self-built houses and the skills and potential of owners to improve and expand them over time. Officially founded in what was the periphery of Mexico City 50 years ago, Neza is currently the second biggest municipality in terms of population of the State of Mexico; a self governing state surrounding the Federal District. Despite being a municipality not belonging to the Mexican capital, Nezahualcoyotl has become a de facto part of the Mexican metropolitan region due to its proximity and relevance. Its rise from a barely legal settlement built by thousands of families into one of the most populated and active places of Mexico City in a period of 50 years is worth revisiting.

THE NEWSPAPER AD

Beautiful house in 2 levels very spacious includes a flat with independent exit. Plot 153m². Construction 247m². Exceptional house in 2 levels, ready to inhabit, includes living room, dining room, kitchen, 5 bedrooms all with closet, studio, backyard, 2 parking places, very spacious in all its surfaces, excellent location, very close to shopping malls, schools, colleges, universities, primary roads, parks, museums, includes all services. Flat includes living room, dining room, kitchen, bathroom, one room, excellent distribution well illuminated, visit it.

If you read such an ad today, you might conclude that the house could be an attractive property worth buying. The price tag, at 1,672,000 Mexican pesos (around \$125,000 dollars) might be tight for your budget, yet it tempts you to find out more. Can such an attractive property be located in the 'infamous' suburb of Nezahualcoyotl, widely known as one of the harshest neighbourhoods of the city, a no-go area for many? In the mass media, Neza is still considered a place where only the narcs live. Yet, as you continue reading, the property remains attractive; schools, parks and many trees are indeed nearby according to Google Maps. More surprising, there is even a private university around the corner. The airport is actually quite close and not only the metro, but very soon the Metrobus, connects the capital and nearby areas. Shopping malls with top of the line products and museums are nearby. It is hard to properly assess its depiction in the media, but it is less difficult to believe that price regulation at this level begins to show a city attractive enough for such property prices.

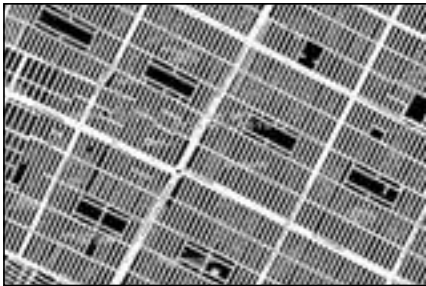
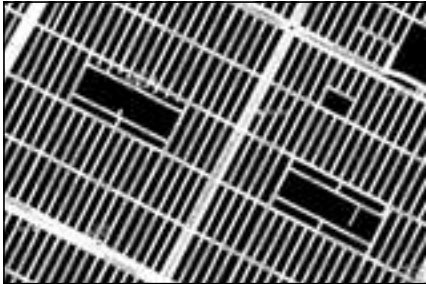
Reclaiming Neza

Since its foundation in 1325, the City of Mexico has suffered from severe flooding due to its geographical condition of an endorheic basin - a topographical condition that retains rainwater without offering an exit for it by rivers or oceans. To protect against flooding, a proper system of water evacuation was required. Infrastructural works to drain the water out of the basin are numerous and go way back in history, even to the time of the arrival of the Spaniards. As the lakes were finally drained at the beginning of the 20th century, the question of what to do and who should exploit the gradually reclaimed new land are crucial to understand the emergence of the city of Nezahualcoyotl in what used to be the lake of Texcoco, the lowest but biggest of all Mexican lakes.

The drying of the lakes coincided neatly with Mexico City's demographic explosion that put pressure on the city housing stock after the 1940s. In just 30 years, the metropolitan area went from 1.6 million people in 1940 to 9.2 million in 1970. As housing rents escalated in the city center, the revolutionary government tried to tackle unpopular price rises by using 'pegged' or 'frozen' rents in 1942. Landlords fired back by stopping all housing maintenance. By 1950, to add more pressure to the mix the 'regente' (appointed mayor) of the city, Mr. Uruchurtu, had forbidden the creation of new neighbourhoods within the Federal District limits. In a few years the combination of decaying rental buildings in the center, demographic growth and increasing densification forced thousands of recent immigrant families to search for land where they could build their own houses cheaply. The municipalities of the neighbouring State of Mexico were an obvious answer and Nezahualcoyotl was one of the first that became available to them.

Visions for a New Land

The first attempts to give the reclaimed land a new purpose were carried out in 1919 and 1921 when the situation was considered an emergency due to the sudden appearance of dust storms from the dried lake surface that began polluting the city. The federal government aimed to turn the area into agricultural land, and later, into a fish farming area, but both projects failed to take off. This failure led the government to consider allowing private capital to develop the land. In 1930, engineer Angel Peimbert, and architect Luis MacGregor drafted a scenario that combined intensive agriculture, industry, and eventual urbanization through the subdivision of plots. Integrating the reclaimed area into the expanding city became obvious. By 1932, the governor of the State of Mexico, Filiberto Gomez released the state-owned land of 7000 hectares to a few private developers, sold by the government at the preposterous price of 1 peso per hectare, on the condition that the buyers would environmentally treat the land and clean it from any toxic remains. This unusual sale ended up in the hands of top military generals (including future high rank politicians Lazaro Cardenas, Francisco Mujica and Leopoldo Treviño), federal government officials and even the two visionaries of the area, Messrs MacGregor and Peimbert. The plot size started at 40 hectares and each private investor could acquire 2 plots. The transfer of property into private hands was soon contested by communal land farmers (ejidatarios), who claimed parts of the dried lake territory as their own. This initiated a long struggle for legitimacy. Regardless,



the Mexican state government proceeded with the plan; the land became available to investors for development. Several developers, some of them with recent experience in developing 'proletariat' neighbourhoods in the city, seized the opportunity and started to advertise the sale of plots offering several ways of payments, usually spreading the instalments over a few years. Most developments offered compact plots of 10 x 20 meters. The massive sale went on without much government supervision or respect to law. Within a few years, thousands of plots were sold without paved streets, sewage, sidewalks, public lighting, water or electricity, and for decades many of the neighbourhoods remained untouched. The basic infrastructure was to be installed once enough buyers had paid their loans to the developers so that, according to them, there would be enough capital for their investments. Some developers forwarded this responsibility to the buyers of the plots from the very start. However, many developers never completed (or even started) to honour their promises. The Mexican government was partly to blame for this blatant abuse of power since one of its laws from 1948 actually permitted developers to shield themselves legally against the claims of landowners for not completing basic infrastructure.

Repression and threats to leaders kept initiatives of collectives to a minimum during the first decades. When rumours spread that one developer did not actually own the land they were paying for, those struggling against the developers called a meeting that included the police, Mexico City government, the developer and the collective. Their answer to their demand for property rights was a unanimous 'strike' on monthly payments until the developer handed over the official property deeds as promised. After this success, several movements spread, demanding developers complete infrastructure works. There were actions against government efforts to tax them in order to supply the missing infrastructure. Collectives became actively operational also against land evictions, since their contracts with developers included a severe measure of eviction if instalments were delayed for more than 2 months. From terra indomita, Neza slowly started to gravitate to the voice and power of organized collectives.

From the Culture of Poverty to Carlos Slim

It is in this period of struggle and desperation that the appearance of Neza at the fringes of the city became a prototypical case study for researchers and journalists in Mexico and abroad. American anthropologist Oscar Lewis described this in 'The Culture of Poverty; the life of 5 families of Mexico.' One of them, the Sanchez family, had just started to settle in the barely-inhabited settlement of Nezahualcoyotl. The picture depicted is an intimate life of a complex family structure; a family struggling for water, facing badly connected public transport, partly supported by raising animals at home but with an overwhelming feeling of insecurity.

Another American expert on Mexico City, the geographer Peter M. Ward, despite being more optimistic on the power of self-built environments, considered the area in 1976 a future problem due to its isolation: “For the vast area of colonias proletarias in the east of the Metropolitan Area (Ciudad Nezahualcoyotl), isolated from any convenient commercial or industrial zone, this problem is clearly a real one.” Nevertheless, the battles to obtain water, sewage, electricity, paving, and property titles were eventually won, achieving stability for its inhabitants and future investors.

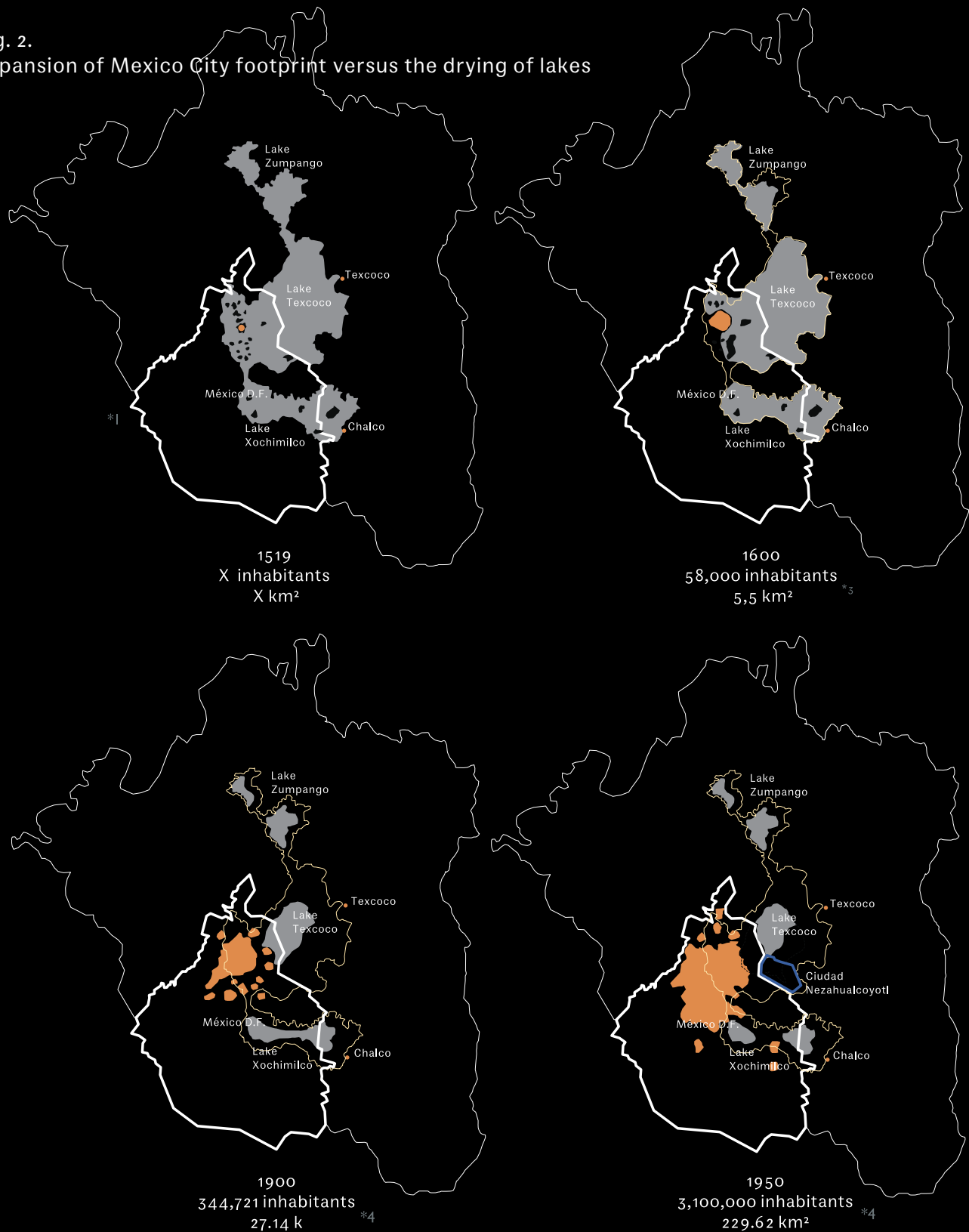
Slowly, the city of Neza gave off a more complex and vivid picture that defied the prevailing concepts of poverty, exclusion, or even the idea of any peripheral slum. The main city ring (periferico) connected Neza with the city; the city Metro opened parallel to Neza’s border, the linea A, in 1991. Though affordable housing production by the state or housing corporations represented a mere 35% of housing demand in Mexico by 1970, Neza inhabitants’ self-initiative contributed greatly to ‘solving’ the housing shortage of Mexico City. By 2011, Neza said farewell to its characterization as a slum in all senses. The final chapter of the Neza York story occurred recently when Mexican heavy weight entrepreneur Carlos Slim proposed to the then-governor of the state (currently president of Mexico Enrique Peña Nieto) to turn the Xociaca open waste dump of Mexico City, located in Neza and one of the biggest in the world, into an ambitious theme park: Parque Bicentenario. The area of investment covers 138 hectares: parks, universities, shopping facilities and garbage recycling plants are to become an example to other regions of the World, according to Carlos Slim.

The City in Reverse

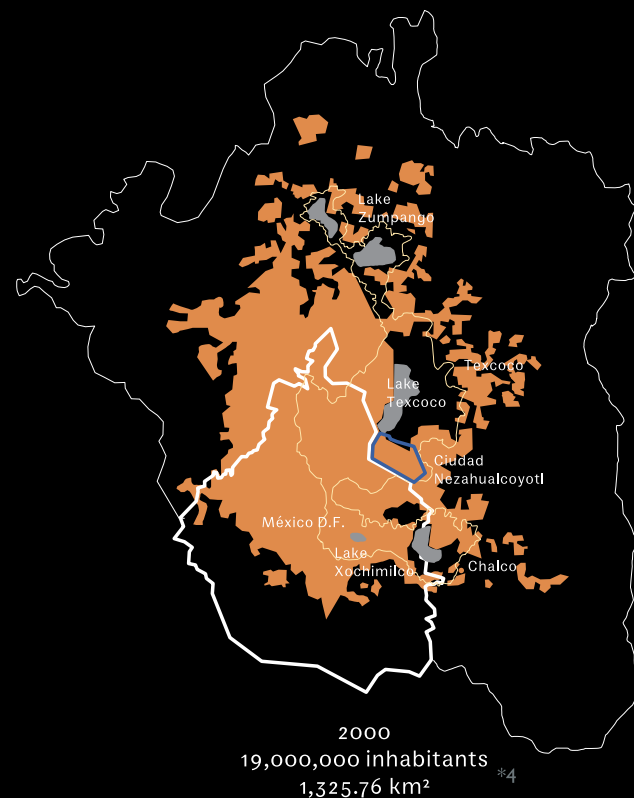
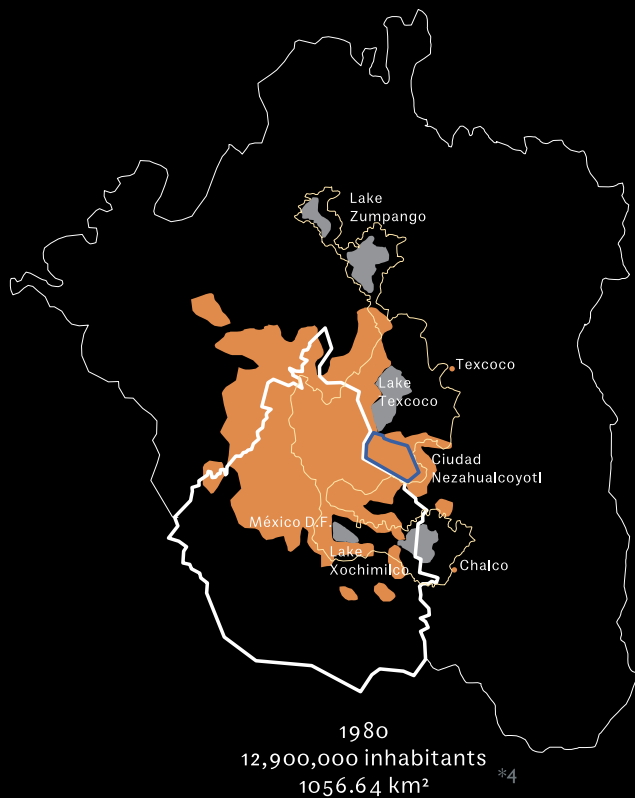
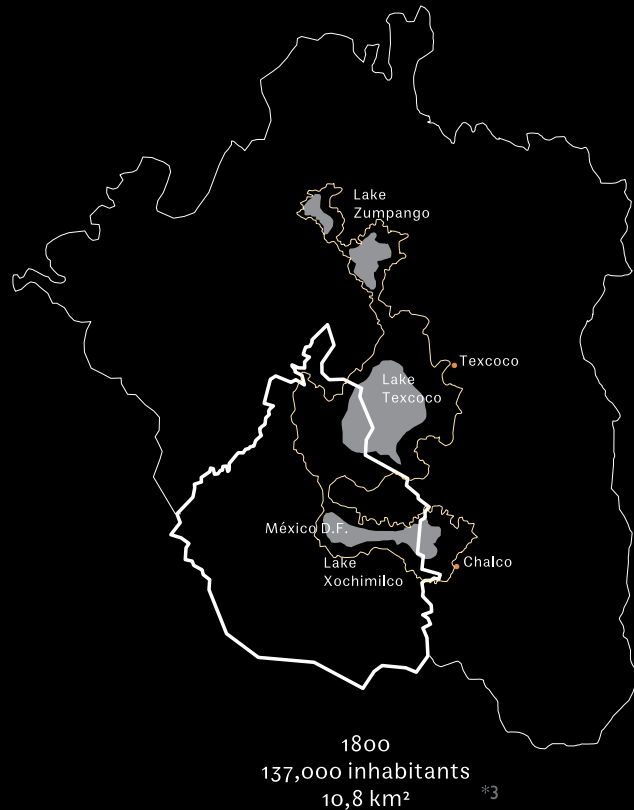
Contrary to the problems of European or American cities, where the debate is now often centered around how to involve the community in the development of peripheral neighbourhoods, Neza puts the question in reverse: how can the community devise strategies to get the government involved in solving the challenges of the city? The skills and perseverance used by the inhabitants of Neza proved that struggle to be successful. They were not mere temporal poses, but the result of addressing a set of specific and fair demands. In Neza, the citizens are the key component to the improvement

of any place in the city; their massive self-investment and improvement in their quality of life eventually became the magnet for more and more investment. When I go to Google Maps and its Street View function, I notice these street profiles do not show a spectacular city life, but there are many bars, markets, and places to play pool, but none seem to my taste. Yet, as I continue strolling in Google Street View, I suddenly realize that I am no longer able to distinguish Neza from many other neighbourhoods or streets of Mexico City I know. Neza has blended into Mexico City: there is no way now to call this the center or the periphery.

Fig. 2.
Expansion of Mexico City footprint versus the drying of lakes



- Federal District - México
- The political Metropolitan division of the México Valley (ZMVM)
- Drying of the lake area of the México Valley
- Urban footprint
- Ciudad Nezahualcoyotl



- 1 Niederberger Betton, Christine. Paléo-paysages et archéologie pré-urbaine du Bassin de Mexico, México: Centro de estudios mexicanos y centroamericanos .1987
- 2 Ingeniero Gerardo Cruickshank García. Rescate hidroecológico. Proyecto Lago de Texcoco.
- 3 Exequiel ezcurra. Las chinampas a la megalópolis. La ciencia para todos. 2005
- 4 ZMVM, Zona Metropolitana del Valle de México, México, 2000.







Av. Nezahualcoyotl



Lago Xochimilico



Lago Michigan



Ing. Luque Loyola



Lago Patzcuaro



Lago Peipus



Lago Patzcuaro



Lago Peipus



Lago Atitlan



Lago Wetter



Lago Mask



Lago Mayor



Lago Onega



Lago Ontario



Lago San Pedro



Lago Zirahuen



Lago Tequesquitengo



Lago Trasimero



Lago Winnipeg



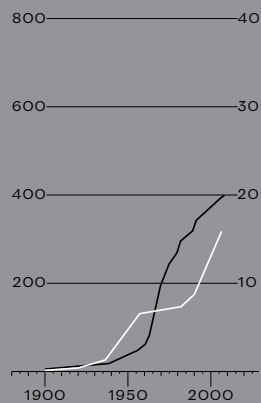
Lago Yojoa

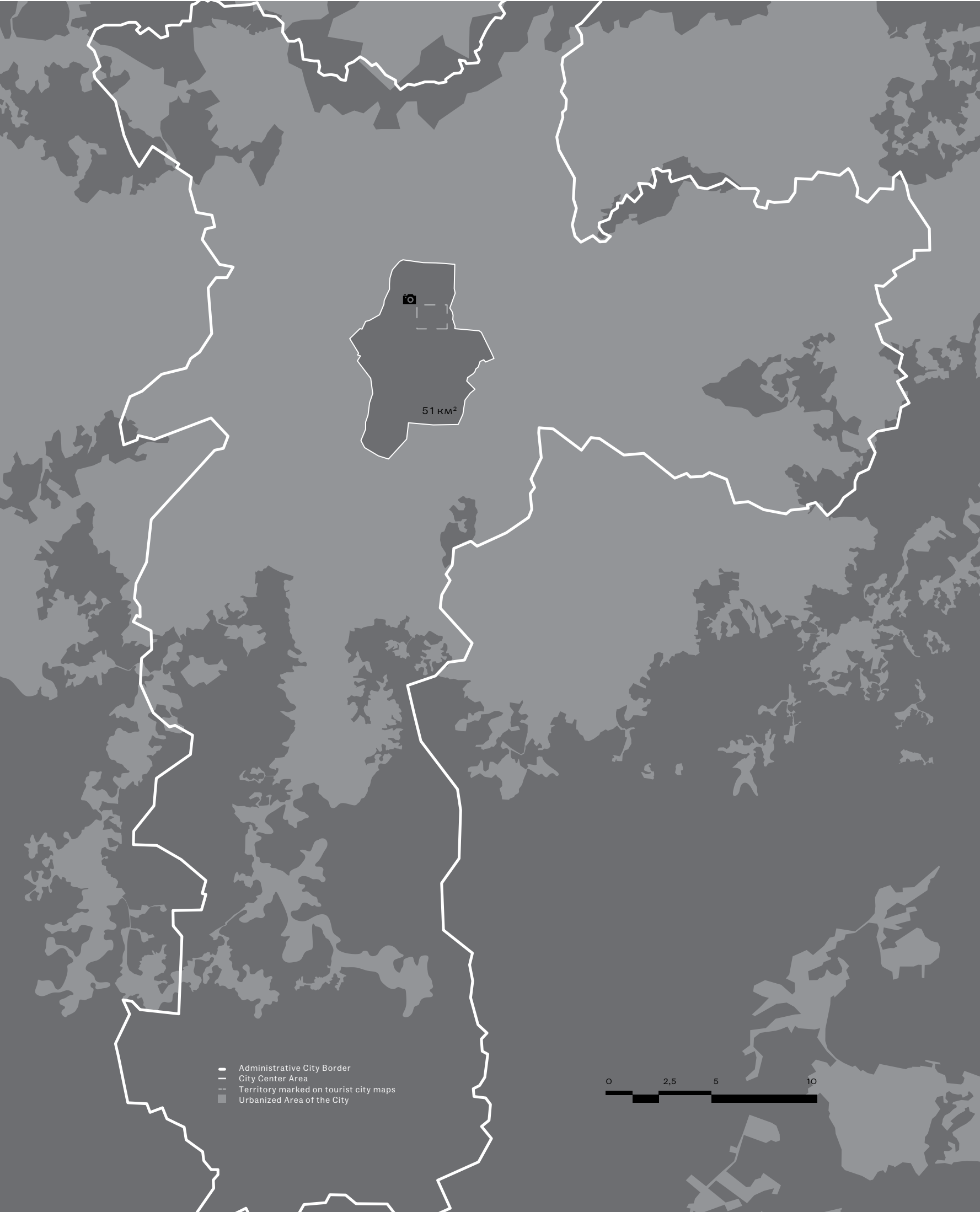
São Paulo

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- Administrative City Border
- City Center Area
- - Territory marked on tourist city maps
- Urbanized Area of the City



Upgrading the Favelas

Elisabete França

What is the "Informal City"?

The 21st-century city undergoes rapid change, resulting in the constant replacement of existing territories as well as territories that have grown in an informal manner, with no regard for the regulations of land usage and occupation. At the beginning of the 20th century, Brazil had an urban population of 6 million, which became around 160 million people just a hundred years later. Integrating a population of this magnitude clearly demonstrates the affinities Brazilians have to urban life. There were no blueprints to be followed for the new urban reality imposed. Lessons learned from the traditional urban discipline were not only out of place, they also could not respond adequately to these challenges. Today, the contemporary urban space project presupposes an understanding of society, with a view to overcoming the ideological barriers that influenced the rationalistic urbanism constructed from the 1920s onwards. The "informal city" is an integral urban phenomenon set up within the city's territory, a key element of urban morphology that shapes the city's design. Nowadays it is no longer possible to accept any concept of the "informal city" centred on negative parameters, sustained around ideas of absence, deficiency and homogeneity. Nor can we adopt as significant that which the informal city is not, as compared with an idealized model of the city. Projects for outlying regions characterized by every kind of precariousness need re-definitions based on their own newer relations of space, time and distance; factors responding to both disruption and order. These then offer possibilities for the coming decades to help build a less unequal city, a city where opportunities can be shared more fully by its citizens. The question of sustainability in cities, so much focused on today, needs to reflect and challenge the city to formulate 'place', and to organize the places for social exchange and interaction.

The city of the future is obviously opposed to the city of ghettos, the city of isolation, the city of closed condominiums, the city where we only exist with those of like-mind. In this sense, in this clash of perspectives, perhaps the example of urban projects in favelas is one of the most powerful instruments for helping us in our reflections. It is precisely the favela, which has a morphology of its own (or several morphologies) and, once accepted as an integral part of the city with its own mechanisms and updated

infra-structures, may become part of a larger urban whole where variety, diversity and exchange constitute everyday life. We must oppose the dominant mindset in which the favela is construed as a focus of problems, an “undesirable neighbourhood”. The urbanization of the favela is a solution that will allow permanence in the locale, as well as the possibility of future investments in homes.

São Paulo has about 1,500 favelas (slums), 1,000 irregular settlements and 2,000 cortiços (slum tenements). This whole conglomeration occupies only 136 km² in a city whose territory is 1,500 km². That is, 30% of the city's population occupy, densely and vertically, less than 10% of the territory of São Paulo. In other words, around 3 million people live in conditions of some degree of urban precariousness – that is, in areas designated as favelas, slum tenements or irregular settlements. However, the new approach to the “informal city” was adopted by São Paulo Municipality and has provided a theoretical basis for future development: the city is working robustly to leapfrog into the formal city. By providing access, by connecting these districts to the city's infrastructure and by creating job opportunities, the informal city becomes more resilient, economically viable and ecologically sustainable. This is the main objective of this Municipal Housing Policy. In short, there is a need to make the informal city even more crisis-proof than the formal city. This privileged role that the city has adopted – a space for democratic communal living – relates to the extension of access to opportunities for all its inhabitants.

Slums and Slum Upgrading in São Paulo

In São Paulo, urbanization has been part of the housing policy's agenda since the beginning of the 1980s, but only through isolated projects, while the number of slums and squatter settlements increased significantly. By the end of the 1980s, the São Paulo State Government, with the support of the Municipal Government, applied for a World Bank loan to tackle the environmental degradation of Guarapiranga's water basin – a total of 160,000 acres in seven municipalities, including São Paulo itself, where 450,000 people lived at the start of the program. One of the main components of Guarapiranga's environmental program was the upgrading of slums and other precarious settlements located in the basin - a total of 27,000 families, 90% of which were living within São Paulo's municipal boundaries. Regarded as the first large-scale, slum upgrading program in the city of São Paulo, the Guarapiranga Program served almost one hundred slums and became an important example to be followed.

The housing problem in São Paulo has been a challenge for decades. The city alone has almost 11 million inhabitants and 3 million live in precarious conditions. To face this huge challenge, the Municipality of São Paulo

through the Municipal Housing Secretariat started one of Brazil's largest slum upgrading programs in 2005 with the understanding that such a program can alleviate poverty significantly as noted above. The program seeks to provide a better quality of life for those living in unsuitable areas and in slums across the city by basically overcoming a series of deficits relating to infrastructure, accessibility, availability of social amenities and public services, in addition to the construction of new decent housing units. São Paulo's slum upgrading program can be regarded as a response to the 1988 Federal Constitution and the 2001 Statute of the City which consolidated all citizens' right to the city and to decent housing, the social function of property, and the promotion of an equitable and just city through urban development. Public expenditure directed toward slum-upgrading makes clear the Municipality desire to reverse the high level of social exclusion and promote an inclusive process of sustainable urban growth.

Precarious housing — favelas or squatter settlements, slums, irregular subdivisions and tenement houses — have been part of the urban landscape for a very long time. These are the only options available for families making less than three minimum-wage jobs per month — a sizeable segment of the population, since their purchasing power is almost never compatible with the formal housing market. The high price of development is mainly due to the lack of land at compatible prices or in a good location in the city. Many simply cannot afford a dwelling unit nor any plot with proper infrastructure in order to build incrementally through a self-help process. Lacking access to the formal housing market, the poor are left with no other alternative than to squat on public land: the margins of rivers and railroad rights of way; land of low commercial value that is usually disregarded by the formal development sector; areas subject to environmental risks such as flood zones or mud slides, contaminated soils, and landfills; sites that are vacant subject to judicial battles; lots with no heirs, or those belonging to religious orders. Informal settlements are also a source of a great number of health problems.

The slums of São Paulo are an urban phenomenon that must be considered as a real part of the city structure, one of its morphological elements, which define the urban design. Although informal, they have two main characteristics when compared to the "legal" city. Firstly, their designs do not obey any established urban rules and legislation; the road system is not defined previously or linked to the housing construction, and the water and sanitation infrastructure are implemented after occupation by the dwellers. Secondly, the housing units are built according to the available empty spaces. This process of occupation is known, in general, as "un-allowed occupation", either on public or private land. As a result of these two characteristics, the slum with its high complexity, scale and diversity has suffered from negative pre-conceptions. Lack, privation and homogeneity have led to serious misunderstandings when comparing the slum with the ideal, classic and traditional pattern of a desired city.

Facing this reality, any design or upgrading proposals to improve these degraded areas, themselves suffering from high indexes of social and health vulnerability, must still take into consideration the fact that these settlements are located within the real city. It must be understood that each slum was built as an answer to the social exclusion process and spatial segregation. At the same time it offers its inhabitants clear self-protection

alternatives when faced with huge metropolitan growth. Formerly seen as a reflex and mirror of an uneven society, the recognized "real" slum's social diversity appears nowadays a key to wider urban problems and solutions. Slum upgrading is regarded as an important component of the strategies to fight poverty; investments in basic infrastructure and services contribute significantly toward reducing the inequalities faced by the families living in these informal settlements. The main purpose of slum upgrading is to overcome shortages of infrastructure, accessibility, and the availability of social facilities and public services, as well as the provision of new suitable housing for families whose homes are affected by the public works. The main goal is to respect the existing community and to keep the majority of the families in their locales, assuring the continuity of the investments they have made in building their homes over time. A second goal is the qualification of public space, not only to increase its qualities as social and recreational public spaces, but also as important elements that can promote the physical integration of the community to the neighbouring areas and promote their recognition as part of the formal city. Thus, besides solving problems such as sanitation, drainage, accessibility, land stability and environmental risk factors, these projects face the challenge of providing quality, well-equipped public spaces, increasing the potential for promoting social encounters and public life.

In addition, projects must deal with formidable soil and topographic conditions, local existing urban and architectural morphologies, and the 'availability' of land in order to generate a well-articulated final environment. The goal is an environment where all residents have access to this basic infrastructure and public spaces, services, and facilities allowing people to exercise neighbourliness and reach fuller citizenship. Considering that slums are determined by historical, morphological, social and structural conditions (flood zones, hill sides, river banks, railroad right-of-ways, etc.) upgrading projects must be specific to each situation and necessarily different from each other. In addition, projects need to be widely discussed with the residents; cultural diversity is of course also a relevant factor in defining architectural solutions. In slum upgrading, a paved road system is designed to allow vehicular access for public services (ambulances, police, mail, waste collection) as well as for the installation of drinking water, sewage, and drainage systems. Dwellings in environmental areas such as flood zones and steep hillsides are relocated, fragile slopes subject to landslides are contained, and streams are protected or canalized. Public equipment, spaces for parks, leisure and recreation are defined as community centres, and guarantee the full development of activities that strengthen community relations. Taking the city itself as a source of solution, slum upgrading is mainly aimed at building quality public spaces that respect environmental and cultural pre-existences and above all, dilute and blur the urban and symbolic frontiers between the formal city and its informally developed and marginalized areas.

São Paulo's Municipal Housing Plan (2009–2024)

São Paulo's housing policy complies with the city's 2002 Strategic Master Plan that ratifies the Federal Constitution and recognizes the right to suitable housing as a social right. For the Strategic Master Plan, suitable housing is that which not only guarantees the resident's safety within it, but also "provides adequate sanitary facilities, guarantees the conditions of habitability met by essential public services, among them: water, sewage, electric power, public lighting, waste collection, pavements and public transport, with access to basic social equipment." As a signatory of the Millennium Development Goals set by the United Nations, São Paulo seeks to attain a series of objectives established therein by the year 2020, especially in regards to increasing the number of families that have access to drinking water and other basic infrastructural needs, and to improving the general quality of life of families living in slums. The challenge is that the construction of the city must be based on the understanding and management of differences, in the move toward social inclusion and the pro-active involvement of the communities in institutions at all government levels and civil society. This is how a democratic city should be constructed.

Based on the principles discussed above, São Paulo's city administration defined its housing policy whereby 130,000 families have benefited with works in progress or projects already concluded, where the final phase provides families with a deed to their land, granting a special-use concession for living purposes. These slums became new neighbourhoods added to the city and families have obtained an important part of their citizenship. Besides the upgrading (or "urbanization" in Portuguese), this includes building an infrastructure that will raise the health standard, with 10,000 housing units being built in order to replace dwellings located in risk areas. Among ongoing works and works contracted from 2005 to 2012, investments by the Program totalled US\$3 billion. In order to continue this set of actions, funds from the municipal budget for housing were increased, complemented by funds from the State and Federal governments. In 2006, São Paulo's Municipal Social Housing Secretary created the Habisp – Sistema de Informações para Habitação Social, a municipal information system for social housing. The system's web interface is designed to facilitate the interaction between city residents and the government regarding public housing, and to make governmental plans and decisions transparent. It provides all sorts of online information on the city's housing policies, programs, plans, design guidelines, news and publications, plus an interface between a geographic information system and the different variables on public housing. Gradually São Paulo's city government has begun reassessing its priorities, focusing on real housing problems and responding to the demands of communities that are better organized. Today it is possible to say that São Paulo's municipal housing policy is a source of pride for those who worked on it. Above all, it is a legacy that should be seen as a best practice in public policy.



Slum upgrading is aimed at creating quality public spaces that respect environmental and cultural pre-existences and blur the urban and symbolic frontiers between the formal and informal areas





Cantinho do CeuPark before renovation



Cantinho do CeuPark — after renovation (Boldarini & partners)

Inclusive Urbanism in São Paulo

Silvio Torres

The São Paulo metropolitan region acts as a laboratory for local and regional public policies focusing on urban regeneration and redevelopment in the 'peripheries' formed by the intense rural exodus over the last three decades. It is a region that had 8 million inhabitants in 1970 and 22 million at present, with 39 cities in its conurbation. This region is responsible for approximately 20% of Brazilian GDP. However, it has a highly fragmented urban tissue; it is uneven and poor in terms of urban infrastructure and the living conditions of its inhabitants. The central areas of these city conurbations offer high performance services, while the peripheries are disorganized, dense, and grow at very high rates. These are the common features of the poor suburbs of mega cities in Latin America. In recent years the role of the state government of São Paulo, led by Governor Geraldo Alckmin has been to establish priorities for inclusive urban development policies, focusing on transport, environmental sanitation and mechanisms that induce local socio-economic development. Several projects demonstrate these priorities: construction of the metropolitan beltway, restructuring of railway lines for high and medium capacity, strengthening the subway network, creating a Social-Environmental Recovery Program for Serra do Mar, and parks in the floodplain of the Tietê river, sanitation and water supply projects, among others. The State Housing Secretariat, the leading public policy for social housing, seeks opportunities to create innovative designs, model good construction practices and management, supported by funding and subsidies from different municipalities, in order to reach the most vulnerable families.

The guidelines for social housing in São Paulo recognize that peripheral territories cannot be treated separately. They must be quickly integrated, by improving infrastructure, and by providing all necessary services and jobs. The new mass transit axis and the restructuring of highways are specific projects focusing action on the slums and squatter settlements of the last 10 years. Many projects for slum upgrading and the construction of affordable housing are being made to integrate these territories and allow the poor the opportunities for social inclusion. Two examples of good practice were carried out recently by the State Housing Secretariat Jardim Pantanal and Serra do Mar projects. These two projects present different challenges: to upgrade poor suburbs and identify insurmountable problems.

The first project presented a complex arrangement of slums along one of the main roads of São Paulo municipality. Jardim Pantanal, in the Tietê river floodplain, consists of over 8,000 families and the urban regeneration project focused along three main axes:

- A The density with which quality projects could potentially create exchanges with the local community;
- B Urbanization through the improved sanitary conditions, upgrades and housing improvements for healthier conditions;
- C Effective projects of social inclusion and community empowerment to offer new opportunities in the labor market.

The above mentioned long process of environmental intervention transformed the territory: improved health indicators with public sanitation and paved streets; expanded recreation areas and socialization zones; produced new standard houses of excellent quality; implemented recycling waste plant projects; factory units for sewing and clothing production; nurseries and housing façades improvements. The social impacts have resulted in the reduction of homicides, down to the lowest level in ten years. These achievements also indicate the effective use of public funds in housing policies and carry over to other urban policies, allowing a seamless integration of the periphery into the metropolitan area.

The second project, the conversion of the peripheral territories in the Metropolitan Region of Baixada Santista-Cubatão municipality consists of upgrading the slums along the mountain ranges into the environmentally protected areas. In addition to the urgent need to remove families from risks which they faced for more than 40 years, it was necessary to rescue the rainforest to improve the quality of water sources, strongly impacted by the presence of more than 7,000 families. This huge operation required an integrated design project that included lengthy negotiations with various social groups in order to prepare them for a new urban reality. This intervention, which had the support of the IDB (Inter-American Development Bank) and other local and national funding, consisted of a new neighborhood development, which was fully integrated into the urban fabric of the city with sustainable building housing units, equipped with proper standards and innovative devices for energy and water conservation. A form of 'inclusive urbanism' with high quality public services, this project was accompanied by the environmental restoration of ancient settlements. Safe geotechnical conditions and a new infrastructure for water and sanitation, with improved access to collective facilities and the local transport system was also integrated.

The Social-Environmental Recovery Program of Serra do Mar has been the model for 'social inclusion' developments and responding to



Several projects demonstrate these priorities: construction of the metropolitan beltway, railway lines for high and medium capacity, strengthening the subway network, creating a Social-Environmental Recovery Program for Serra do Mar, and parks in the floodplain of the Tietê river

socio-educational issues. It demonstrates a new form of engagement with authorities and demonstrates the need to form multidisciplinary teams (city experts) in order to address slum upgrading projects focusing on social efficiency, and on quality improvements in family life. Opportunities offered to families such as training courses in art education, radio and TV media, landscaping, and local entrepreneurship have been essential for social change and integration of households into the new neighborhoods.

Finally, this points to a new direction for social housing policy in the state of São Paulo. In contrast to work consisting of slum upgrading and construction of affordable housing in the suburbs, São Paulo must also promote the renovation of under-utilized areas and degraded central zones. A call for private initiative, a Public and Private Partnership (PPP) under Administrative Concession, began this year for the construction of 20,000 housing units for low-income families in the central area of São Paulo. This is both an urban and economic renewal and a social inclusion project. The proposal aims to promote an improved quality of life for workers in the city center by offering homes close to the workplace with access to urban infrastructure. The initiative will help rehabilitate degraded areas, create jobs and provide new income (to the extent that companies will have new spaces for trade and services), while also improving the urban transport system. The project has the support of the private sector and three government spheres. In addition to the contribution of state and local governments, entrepreneurs can obtain part of their funding through federal programs.

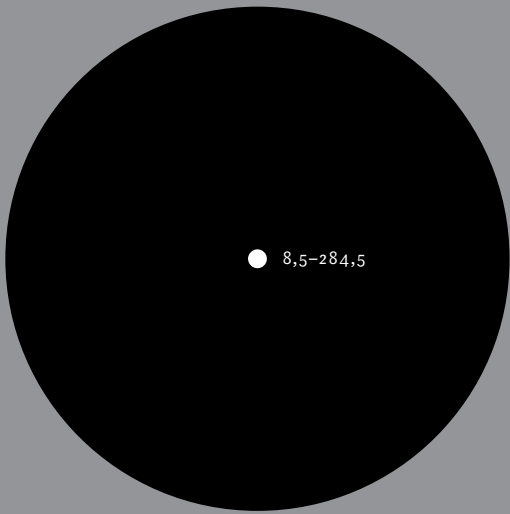
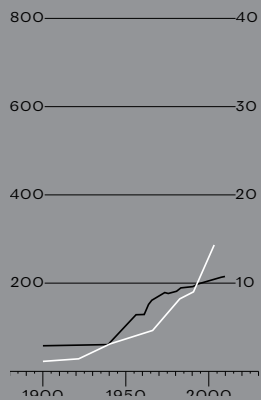
The challenge to integrate and socially include the urban poor requires a revolution in thinking and managing cities. It is most important for public officials - national, regional and local to share their synergy with the private initiatives. In Brazilian cities and in the state of São Paulo, the challenge is to improve the conditions of the slums, risky areas and illegal settlements by using creative solutions, while exploring other urban uses, re-inventing them in line with the desire to respond to involved agents, planners, stakeholders and residents.

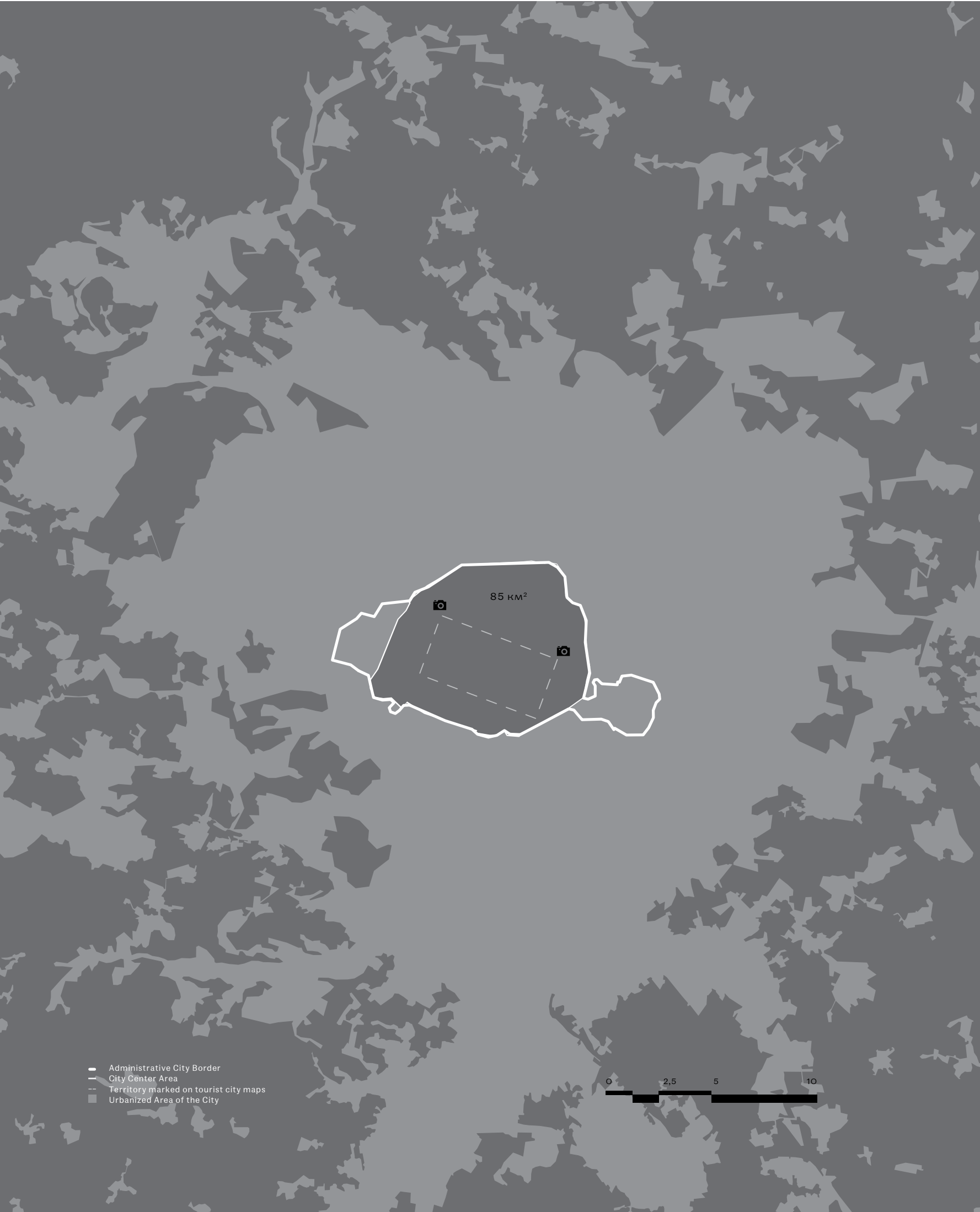
Paris

10.62 MLN PEOPLE. 28450 HA



33,5 PAR





85 км²



- Administrative City Border
- City Center Area
- Territory marked on tourist city maps
- Urbanized Area of the City



Paris and its Peripheries

Sophie Body-Gendrot

In the Paris metropolis today, the imbalance between the very dense, powerful intra muros of the French capital and the other two million residents spread out among its various surrounding areas is glaring. This problem is similar in the old historical Moscow, where its 7 million residents only occupied up to 15% of its territory. The explanation for the case of Paris are both historical and political. Like Moscow's inner city, Paris (twenty districts intra muros) covers only 100 km². The Greater London Authority manages 1580 km² with 8 million residents over 33 boroughs. New York City (five boroughs) has 8 million residents. To achieve equivalence, Greater Paris (1,300 localities), with its 11.3 million residents, should be spread over 12,000 km².

The distinction between modern Paris (intra muros) and the first ring dates back to Baron Haussmann and the fortification walls built in the 19th century. Throughout that century, Paris absorbed a continuous supply of migrants from the provinces and from adjacent countries. The city was unfortunately unable to adapt to this massive influx. The living conditions for the poor were disastrous and kept deteriorating as more people arrived, especially after Haussmann's large renovation works in the 1860s which precipitated the revolt of the lower classes during the Paris Commune of 1871. The writer George Sand once remarked how many more poor people were on the street forcing the pauper to beg at night, knife in hand. The conflict between the dominant classes and the 'dangerous' paupers (one-third of Paris' population) grew throughout the nineteenth century. The River Seine marked a geographical and social divide between the poor concentrated in the centre and to the east, and the dominant households in the north and to the west of Paris.

Paris' main heritage from Haussmann was the creation of a real banlieue — peripheral sites in the city where, from the Second Empire (1850–70) onwards, workers were sent in successive waves. These became places where poor citizens accustomed to urban life were 'exiled' and forced to re-organize in order to survive. Briefly, this demonstrates how the end of the 19th century was similar to experiences in Greater Paris today in areas of social tension. These were 'hot spots' where police were reluctant to enter for fear of violence or inciting further disorder. Any tendency to idealize the past disappeared. Only

after WWII, during the “thirty glorious years”, a time of growth and almost full employment, social homogeneity and welfare redistribution, was social unrest alleviated. But the rigidity of the spatial/social separation between Paris and its outskirts was not overcome. Partly explained perhaps by the puzzling administrative and political partitions of this region, and also partly explained by the role of the State and of Paris, as the capital of that state that is France.

The Politico-Administrative Puzzle

The cleavage between the Paris intra-muros and its surrounding localities, situated on three rings measured by their distance from the centre, is historical. There are 1,280 localities in the region and seven geographical départements (Paris is both a city and a département). The first ring is made up of 21 localities; the second ring concentrates 400 localities. The Greater Paris Project was launched in 2008, and aimed at overcoming the institutional, social and cultural fragmentations caused by so many départements and localities, each with a Mayor and a City Council with the power to decide on public issues. The new Paris-Métropole (MGP), approved by the House of Representatives in July 2013, was to include 8 residents out of 10 in Greater Paris by 2016 — 124 localities, 19 merged localities (intercommunalités), four départements (Paris, Hauts-de-Seine, Val-de-Marne, Seine-Saint-Denis) plus the region Ile-de-France. MGP was to be in charge of housing, pollution and traffic problems. However, this has yet to be approved by the Senate due to large opposition to such political and administrative reorganization. Nothing has yet been done to reduce the territorial and social inequality that plagues the metropolitan area. Meanwhile intense political maneuvering increases.

The region (IDF) retains important powers, however, which impact Paris directly. The schemes for buses and subway lines are elaborated both at the metropolitan and regional levels with the approval of state authorities. The syndicate of public transportation for the region (STIF) and the RATP (régie autonome des transports parisiens) have to report to the State. 800,000 people commute to Paris from the periphery every day and 300,000 Parisians leave the city daily to work in the periphery. The city owns canals, which pass through 120 localities, rivers and aqueducts, and garbage substations managed by the city and 88 other localities. This garbage treatment affects 8 million residents and four plants in adjacent localities. The city also owns cemeteries, parks and building lots yielded to national power and utilities services; all to be found in the adjacent periphery.

In view of these new schemes, the mayors of the banlieues refuse to take charge of what belongs to Paris (cemeteries, garbage, etc.) even if these are located outside of the city. The city also manages

An object of fascination – urban peripheries in Paris are perceived as lacking economic dynamism, social status, inclusion and civility, requiring a variety of governmental measures to keep them afloat

20,000 units of public housing spread across 34 localities, managed by the Paris Central Office of Public Housing, OPAC (Office public d'aménagement et de construction). Since 2001, however, the city government of Paris has established more or less loose links with surrounding localities. Charters have been signed between the city and adjacent localities aiming for better cooperation. These acts might concern the covering of the ring road around the city, electric tramway extensions, or the development of sports centers, recreation spaces and cultural events etc. But these forms of agreement remain limited and fragile.

On Transportation and Economic Development

While Paris and the first ring have a dense distribution in terms of public transport, housing and population, the second ring and the third ring lack the same type of public transport network and employment diversity. Consequently, the space of those peripheries, as is often the case, is more loosely populated by successions of uniform cottages and, sporadically, long chains of massive public housing, often poorly served by public transport. A Greater Paris should ideally generate mixed-use polycentralities around connexions, flux, sites and landscapes beyond the central city, which may remain politically and administratively dominant but not prevent other centres within the metropolitan space from interconnecting. Hubs of transportation should definitely reorganize the spider's web that centralized Paris represents. The new transportation scheme aiming at linking 200 km of the region by subway is planned to start in 2015. All the lines should be completed between 2020 and 2030. This driverless subway in the figure of eight, will link wealth-generating business clusters (industrial parks, research and technology areas and airports) to marginalized and underdeveloped banlieues, with mobility and proximity as major goals. 90% of the regional population should be less than 2 km away from a station. The new express subway should generate over 115,000 jobs worth a resulting economic boost around the stations. But no scientific report has established that this scenario would materialize, according to Treasury experts.

On Density and Environmental Concerns

Historical Paris has twice the density of London. Densifying the second and third rings of Paris is an ecological necessity. Due to poor public transportation, this is where residents use their cars the most, hence polluting the atmosphere with carbon dioxide and excessively contributing to global warming. The question here is not whether to have more sprawling

banlieues. All experts agree on retrofitting — building on the built and respecting very rich agrarian soil, in line with the Kyoto agreements on reduced energy consumption. Designs go from nebulous localities towards a porous metropolitan area, with linkages either below the ground or on the surface, and landscaping and green carpets even on top of buildings. If Paris is linked to Le Havre along the ocean, nature will alternate with the city spaces. New forests dispersed in the urban zones could provide resources for building and heating and would help fight pollution (near an airport for example).

Another idea comes out of the flexibility given to dense housing that usually suburban dwellers resent. Yet there is always the desire to spend less on energy. One innovative architectural scheme emerges when households have mature children, in that they should be able to increase the height of their homes; or then be able to reduce their size when they get older in order to reduce energy expenditure. The presence of the River Seine stimulates the imagination. More use could be made of large and small rivers to alleviate road traffic and pollution. For example, the transportation of freight on the Seine can replace 200 trucks on the roads. But it could also be possible to densify the river environment with attractive housing and tourist activities. People could discover a collective identity by living along water. Due to the new energy context, innovative industrial jobs could also be developed.

Overcoming the Fear of Otherness Leading to Spatial and Social Separation

In the history of social representations, the fear of banlieues has replaced those born out of the ill-famed neighbourhoods in the historical city. An object of fascination for the media, filmmakers, writers, and artists in general, these urban peripheries in Paris are perceived in terms of their deficiencies (the lack of economic dynamism, social status, inclusion and civility), requiring all kinds of governmental measures meant to keep them afloat. Territorialized policies, also called *politique de la ville*, address the social question (relabelled the 'urban question') and territorial decay, but are a mixed blessing.

On the one hand, they bring some relief to poverty, dysfunctional housing and social handicaps by launching urban renewal interventions based on social mix, well-designed housing, all set in a better environment with improved transportation. Mayors are, of course, fond of such programs that embellish their localities. They are also well-funded and hardly controversial. However, the social problems are more difficult to solve. Policies support job creation for young people via better training and public funding (subsidized

For an outsider, all these peripheries look alike and the placelessness is striking: the same type of public transportation, same railway stations, malls, fast-food restaurants and parking lots

jobs). But problems remain as generations move out, and migration patterns bring new poor and young households in first-entry locations. The difficulties of strangers living among strangers persist. Public policies seem never adjusted enough to the global economic and social problems as they percolate down to the receiving end of these banlieues. Domestically, social prevention and territorial policies tend to stigmatize the very places and recipients that they aid by selecting them on the basis of their widely publicized handicaps. What can be done to counter the communication of such negative markers? On one hand, changing the vocabulary may be helpful. In collective representations, references to zones, belts, banlieues, cités, etc. evoke a dangerous 'otherness' and numerous types of failure. Instead of using a generic negative term to refer to urban peripheries, why not address these localities via positive correlations associated with magnet schools, scientific centres, theatres, operas, parks, decentralized ministries or excellent architects? Why not draw attention instead to its emerging forms of culture, the vitality of multicultural youth and all other kinds of successes in order to balance the colossal weight of a culture too often reflecting the taste of the elite?

Multi-communal metropolises experience problems of identity because they too frequently convey an image of a cultural vacuum. There is no epic narration of the metropolis, no identity, no story emphasizing their assets in a long-term perspective. This is a specific problem tied to France, due to a long historical past dominated by Paris as the capital. In the Parisian region, who speaks lyrically and spontaneously of the large terrace of Saint-Germain-en-Laye with a spectacular view on Paris, of the banks of the Marne river evoked on the photographs of Robert Doisneau, the Basilique and theater of Saint-Denis, or the nearby forests and valleys and the multicultural festivals? The budget allocated to urban policies aiming at metropolitan cohesion, in terms of information and communication, is generally quite small and Paris remains as 'a heart cut from its members'. Urban policy communication does indeed focus on specific actions in space and time but not on long-term plans, for instance, in housing or transportation policies benefiting the whole country. Historian Annie Fourcault noticed that, in France, the shortage of low-cost housing started at the end of the 19th century and continued throughout the next century. The urban policy initiated in the 1980s allowed more than half of the residents of problem areas to have access to public housing projects. She implies that this urban policy did not merely focus on marginalized urban areas at the periphery but on former industrial cities and on city centers, cementing them via a common approach. In the 1990s, the Solidarity and Urban Renewal act had the same intention. It was meant to erase disparities between rich and poor localities and required all localities to offer 20% of public housing to their residents. But this law was never properly enforced. Conservative mayors supported by their constituencies prefer indeed to pay fines rather than respect the law.

On Overcoming Urban Violence

Problem areas at the northeast periphery of Paris are only flashpoints in the widely urbanized metropolis. They do not form a continuous ribbon. The major problem for Greater Paris, and it is not a simple one, is to combine social cohesion and territorial coherence into a unique project. Urban segregation, social marginalization, and the deficit of adequate public services generate numerous forms of frustrations leading to individual violence and collective disorders, as was the case in the Paris metropolitan area in the fall of 2005. The interpretations given to those events are too numerous to be listed here (Body-Gendrot, 2012; 2013). But it should be emphasized that urban violence is not the norm; it rarely happens, despite media coverage giving the impression that there is a constant war going on in the banlieues.

Residents living in massive highrise projects accumulate grievances about their environments, and blame those who designed them without any consultation with them. They do feel that they have a right to the city, with decent and quiet housing, safety, good schools for their children, adequate services and places of living reflecting their image as citizens, as urban strollers, as friendly neighbours. As the economic situation worsens for them and public schemes take too much time to offer any relief, many vent their anger by giving support to extremist political parties' ideas.

It is therefore urgent to restore a sense of citizenship and self-respect for these populations via social media, and also to empower the residents through participation in common projects. A governmental report released in July 2013, based on a survey on residents from these areas, offers numerous potential proposals. Currently, however, it may be politically difficult for governmental elites to enforce them. Community policing, for example, seems to be a way for police and young residents to engage in a dialogue. But on both sides, antagonisms are so high that the idea of a 'reassuring police', which would be accountable to the populations that they serve, is not conceivable in such areas.

To restore the residents' sense of belonging to a larger metropolitan and homeland matrix, respect must be paid to them, in the ways public employees deal with them, in the design of the buildings and the environment in which they live and in the facilitation of their mobility by way of public transportation or with free-access electric streetcars. Reducing transportation time would make possible a better social mix. The mixed use of shared space with other residents (via sports centres or open outdoor markets or leisure facilities, etc.) would also bring a social cohesion to fragmented spaces.

Counting on Local Cultures as a Motor for Action

Many localities exist with and without the metropolis. Each locality has indeed its own population, its history, its projects and its relative autonomy. Yet at the same time, it is important that these localities become aware of their belonging to a larger metropolitan entity — a region, a transportation network, forests, rivers, lands, places of memory. Over the years, the potential of these areas can be explored independently, separate from the political and administrative stages. What kind of representations are conveyed by the population's daily experience? To an outsider, all these peripheries look alike and the "placelessness of place" is striking: the same type of public transportation, same railway stations, malls, fast-food restaurants and parking lots. The outsiders' perceptions, including those of legal authorities, especially the police, constitute a major dimension of social inequality and a durable force of determinism, which could be addressed more robustly. Too often, residents from the peripheries are condemned to the durable inequality of their low-status microcosms, with no hope of larger transformations at the metropolitan level.

And yet these localities have a *savoir-faire*, and place matters. Culture is not only a set of practices and social relations, or an adjustment to an environment, but a continuous creation. As remarked by Henri Chombart de Lauwe and Robert Sampson among others, there are forms of identity and of culture leading to action, to creation, to innovations showing that groups, however deprived they may be, know how to cast the dice from the social positions they are in and find new solutions in their relations to their environment. Innovation may bypass existing rules and laws and compensate for the lack of objective resources. One has in mind innovative games for the very young, or shared transportation. The social efficacy and coherence in such apparently disorganized environments may lead to new social exchanges and conflict resolution which could inspire planners, architects and other decision-makers if they took the time to listen and observe.

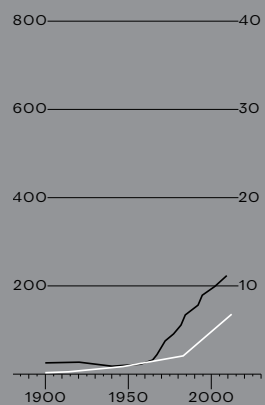
- The health of societies depends on social cohesion and territorial coherence within a polycentric metropolitan design.
- The continuous concentration of diverse people in metropolises sends a clear message of resilience and trust in their own civic capacities.
- What is uncertain, perplexing and contradictory should not be feared but welcomed as an embryo for solutions.

nd Paris, pour quoi faire ?

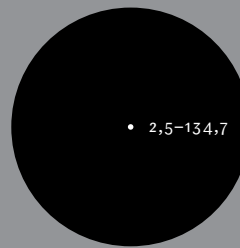


Berlin

3.46 MLN PEOPLE. 13470 HA



34,1 **PAR**





- Administrative City Border
- - City Center Area
- - Territory marked on tourist city maps
- Urbanized Area of the City



Berliphery

Theo Deutinger

European Archipelago

“Approaching Eutropolis, the European Archipelago of metropolitan areas, formerly known as Blue Banana, from the east, thus coming from China or Japan,” according to Roger Brunet, “the first large outpost one encounters is Moscow. If one leaves Moscow behind and travels onwards, the second, though much smaller, island is Berlin, just a few hundred kilometers offshore the large landmass of Eutropolis.” When the Berlin Wall came down in 1989, French geographer Roger Brunet, coined the heavily urbanized zone running from northwest England to Milan the “Blue Banana.” Within this large urban field the “Center of Europe” could be traced around the cities Brussels, Strasbourg, Luxembourg and Frankfurt; cities that accommodate the European Union’s most important institutions.

Berlin is left out of this economic and political stronghold. Berlin is, and always has been, positioned on the periphery of Europe. When Berlin was re-instated as the capital of a reunified Germany, a political and economic outreach of the Blue Banana to the East was expected, yet this never happened. The city was just too far away. Consequently, Berlin had to establish its own centre of gravity, its own economic and political axis. Since 2006, the Hauptbahnhof has helped connect the city to international rail networks and the impending Berlin Brandenburg Airport (BER) is tasked to position Berlin as global hub. New branding initiatives like Silicon Allee should attract IT companies to settle in the capital. In other words: Berlin is under construction. Even in the glory days of Berlin, when it was one of the top three European cities together with Paris and London, Karl Scheffler described Berlin as a “colonial and pioneer city” in his book “Berlin: Ein Stadtschicksal” (1910), underlining its peripheral position within the European context. Today Berlin is still a “pioneer city” and lives from the exclusivity of its geographical position, from its position as cultural mediator; too far East to be truly German, but too far west to be really Slavic.

There is nothing but Berlin. In this respect the position of Berlin can be considered very similar to Moscow. What Berlin and Moscow don’t have to fight for is isolation, often underrated in our current times of worshipping the global hub. If we accept what the German philosopher Peter Sloterdijk says, the island known as Berlin must be a true product of modernity: “Modernists are island-composing and island-building intelligentsias who,

so to speak, act on a topological set of human rights: herein gets the right to isolate (and insulate) combined with the co-original right to connect..." Berlin and Moscow are fortunate. They need only call on their right to connect, which ideally results in a state of 'connected isolation'. However this enables Berlin and Moscow to combine the advantages of a closed system with that of an open system.

In this state of co-isolation, one can enjoy the luxury of living on an island, while at the same time being connected to the rest of the world. Instead of appreciating its excellent position between two worlds, however, Berlin also tries to become part of the European archipelago. The reality is clear: the harder it tries to connect, the more it seems to drift away. Paradoxically, Berlin has never been further away from political Europe since becoming the country's capital; a fate that might be its greatest asset. Berlin has to strive forever to become an integral part of the European network of cities; it must stay sharp and alive for fear of any more distance. Berlin may need to be a metropolis to survive.

Metropolis

On April 13, 1990, the German newspaper "Die Zeit" stated that Berlin would become a "magnet-city and a political-economical-cultural supernova." It was assumed the city's population would grow within a few years from 3.4 million at the time of reunification to 6 million. This did not materialize and the current number of inhabitants is more or less the same as it was at the time of reunification. Yet something has changed. Somewhere between 1990 (the year Berlin became the capital of unified Germany) and today, the city turned into a metropolis. We can probably identify this to have occurred in 1999 when the Federal Diet and the Federal Government moved from Bonn to Berlin; a logical decision since Bonn was only the provisional seat of West Germany's government after WWII. It had never been granted the label 'capital'.

Yet we have to ask: on what reason is this status of metropolis based? Certainly it is not Berlin's rank as business location, since it places 47 out of 50 German cities, according to German think tank INSM. Nor can it be because of its international infrastructure, since Berlin ranks only 4th as a railway hub and 3rd as an aviation hub (Tegel + Schönefeld) within Germany. And not even as a cultural city, as although Berlin ranks first within Germany, it is placed 4th by HWWI/ Berenberg.

Clearly it is a "metropolis in the making," a wannabe metropolis and yet it would be no exaggeration to say that it wants this status badly. Berlin's impatience for this status has led to the premise of 'no results but processes,' which while unnoticed, has turned into a method that sometimes generates absurd results. In the Berlin Brandenburg airport project, the 'no results but process' approach has led to the constant delay of its completion,

subsequently to national, if not international embarrassment. Yet Berlin's 'rankings' suggest otherwise; its prospects are promising. In 1871 Berlin was elevated to the status of Imperial Capital of the German Reich and gained instant political and later, economical significance. This fundamentally changed the appearance and the culture of the city. The city grew and doubled to 1.8 million in the following 24 years; two-thirds of the new inhabitants having immigrated. At the beginning of the 20th century, Berlin was considered a rising star in the European firmament, short-lived however; after serving as a pivotal city for two World Wars, Berlin was condemned to 44 years of isolation and became a political island.

Political Island

The division of Berlin into East and West parts diminished any potential global status it had, while at the same time leading to an increase of cultural diversity and exceptionality. The longer the separation lasted, the more both 'cities' of Berlin turned into peripheral settlements in the international context. Surrounded by the Berlin Wall, embedded within East Germany, West Berlin functioned as an island, supplied via four road and railway transit routes, and three permissible air corridors connecting the city to its political, cultural and economic mainland, West Germany. For East Berlin it was not the Wall but the planned economy and powerful urban planning directives of the GDR, which prevented the city from expanding into its hinterland. The wall around the socio-capitalistic West Berlin, and the strict urban planning in East Berlin proved to be isolators of similar strength. Upon reunification, the urban form of the two Berlins appeared to fit perfectly together. However once these isolators were removed by being joined, the transition between the city of Berlin and its surrounding periphery appeared sudden and drastic. Whatever ideologies were in play, it was agreed that suburbanization lay in waiting as a result of looming capitalist development and needed to be avoided at all cost. It was felt that new isolators needed to be introduced to protect the insularity of Berlin.

Initially the government of the city-state Berlin and the state of Brandenburg proposed the idea of merging the two states into one entity in 1991. This administrative fusion of a new metropolis with its periphery into a single state would have provided the planners with the administrative and theoretical power of planning city and hinterland alike. While a slight majority of Berlin's inhabitants voted for the merger, the people of Brandenburg clearly were against it, revealed in a referendum held in 1996. Important time was lost but in 1998 the city-state of Berlin formed, together with the surrounding state Brandenburg, the "capital region Berlin-Brandenburg" in order to establish a regional development plan (LEP) based on the doctrine of "decentralized concentration." This plan aimed to prevent the capital region from outgrowing urban structures and to protect the surrounding nature and landscape of Brandenburg. "Decentralized concentration", a key concept in German's spatial planning, refers to the concentration of population, workplaces and infrastructure in cities of different sizes that are spread relatively evenly throughout the country. Unfortunately "decentralized concentration" remains a largely descriptive concept. Nobody would really argue with the need to act regionally yet the intersection of two federal structures (state of Berlin and state of Brandenburg) with strong local governments has so far prevented the development of effective regional governance structures.

Unnoticed, the strategy of “decentralized concentration” is, however, bearing its fruits, though not in the expected way. Not only was the periphery of Brandenburg strengthened, the archipelago Berlin simply added some islands to its system and activated them according to its needs. Well-connected small towns like Oranienburg, Eberswalde and Potsdam (for the more affluent people) turned into affiliates of Berlin. The spaces between these islands remained absolutely untouched by these developments. In fact, the area between these islands is emptying out, leading to the closure of schools and the dismantling of the infrastructure. These trends are reinforcing the isolating qualities of the periphery. It is cruel but, to re-appropriate Rem Koolhaas, the “highly charged nothingness” of Brandenburg proves a better isolator than any spatial plan could imagine. It is not Berlin that isolates itself, it is its periphery that creates the distance to the mainland. Thanks to this strong periphery, Berlin can call itself a metropolis.

With the new LEP in 2007, the concept of “Decentralized Concentration” was thrown overboard and replaced by the model of “Strengthening Strengths,” an even weaker and hollow sounding slogan. The awareness to stay away from administrative expansion and the attempt to organize the entity as a “capital region” should be acknowledged yet the recommendations and planning instruments appear too theoretical and the administrative power too weak to be effective. The issues covered by the LEP were however pertinent: European spatial planning, energy and climate, BER airport and spatial analyses. Lack of administrative vigor and a bureaucratic abstraction of space are valid at times of strong governmental planning departments with a rather weak private sector. In a reversed reality with large scale and strong private sectors, and a weak, poor, public body abstract and generalized models are soon ruptured by legal and financial loopholes.

Pleasure Island

There is no project that branded the city of Berlin more than the Berlin Wall. Though the Wall removed every possibility for the city to grow into a truly European capital throughout the German economic boom in the 1960s, it gave back everything and more after its removal. Berlin will however, remain the city that once was divided by a wall for a very long time. The Wall not only changed the city but its inhabitants as well. Berlin’s eccentric position led inevitably to eccentric people. During the Cold War, this eccentric position was reinforced in West Berlin since it functioned as an important sign of determination and a showcase of strength. For the east, West Berlin was nothing but an easy target to trigger reaction, as Nikita Khrushchev, First Secretary of the Communist Party of the Soviet Union explained: “Berlin is the testicle of the West. When I want the West to scream, I squeeze on Berlin.” There is no clearer explanation for the peripheral and insular

position at the time. The life of the 'islanders' was extreme and fatalistic, not suited to everybody. By offering special conditions, Berlin could keep its population stable; a necessity to demonstrate its livability and vitality. In the Cold War the city functioned as a lookout tower, a western outpost in the east. For the youth of West Germany, Berlin turned into a sort of Pleasure Island. Everybody who applied for citizenship was granted it, along with exemption from the Federal Republic's compulsory military service. Hence Berlin turned into a kind of gated community of like-minded people who won, with one signature, up to 18 months of 'life.'

Berlin, as playground, was not restricted to youth; adults also had their fair share of fun. The separated Berlins functioned as a provocative playing field for ideologists. West Berlin's 'game' kicked-off with the Axel Springer high-rise building, placed exactly at a spot and built exactly high enough to evoke a fierce reaction from 'the other side.' As expected (or hoped for), the building caused a reaction, which came in the form of a residential complex at the Leipziger Strasse, which was to function as a second wall to the west. Like the two hemispheres of the brain, one worked for the other. The western half acted only to make the eastern part react and vice versa. Over 40 years of psychological mind play produced a unique architectural and urban legacy in both Berlins.

Paradoxically, the city is doing its best to forcefully erase this uniqueness. Exceptional, iconic legacies from the past are demolished e.g. Palast der Republik is replaced by generic copies like a City Palace (Stadtschloss), or voids like the Potsdamer Platz are filled with developer architecture and turned into one of the duller places in Berlin. Yet exactly this seems to be the 'Berlin style'. As Philipp Oswalt explains, "It is the paradox of Berlin that exactly the lack of distinguished historic buildings, makes the city appear as place loaded with history." Thus, there is nothing to fear. As long as Berlin is destroying its past, it will remain the peripheral and isolated Berlin we know it to be. Probably it is also this reckless handling of its most urban substance that reinforces Berlin's constant inner peripheralization. It is astonishing that the number one reason one moves to this metropolis housing over three million inhabitants, is its village-like atmosphere.

Islands within the Island — The Green Archipelago

To call Berlin an island is oversimplified, in fact it is an archipelago. In the year 1709, the Prussian capital Berlin was born out of a merger of the cities Berlin, Cölln, Friedrichswerder, Dorotheenstadt and Friedrichstadt. Thus the city was in its very outline already fragmented. Although the physical structure of these initial cities has been eradicated through Berlin's unique ability to continually destroy its architectural past, its very spirit seem to have survived. In the mind of Berliners, the city does not consist of districts but of "Kiezes." The word originated in the time of the eastward expansion of German settlers in the Middle Age into Slavonic territories, when in many places both communities existed side by side. The word is of Slavonic origin ('chyza' meaning hut, or house) and referred to a Slavonic settlement near a German town. The persistency of the kiez throughout time and throughout the different models of governance proves the strongly ingrained polycentricism of the city. Berlin is not only periphery; the

periphery is in Berlin — Berlin is not an island but the island is within Berlin. Berlin is an archipelago in which every kiez is a city or even a home and the periphery is the area between one's kiez and the next one. The reason for this fragmented structure, according to O. M. Ungers, is that while Berlin has never followed one idea alone, it has been formed on divergent ideas. Theses and antitheses coincide here like breathing in and breathing out." A rule that does not result in "a unitary image but a living collage, a union of fragments" as Ungers explains in his study "City within a City". This particular perception of the urban structure makes Berlin appear "rather a continent than a city". Berliners seem to have found a magic formula how to increase and inflate space by atomizing the city. The fragmentation of the city by the allied forces and the disconnection from the hinterland was not felt as strong in Berlin as it would have been felt in any other city on the planet. Berlin, a city that always has been fragmented and always populated by foreigners is not hooked on the place but understands itself as an accumulation of drifting islands. During West Berlin's insular existence, the art of 'increasing' space was developed further into a method for survival. As Manhattan applied the method of surface enlargement via vertical volumes, which could each house a city itself, so Berlin inflated space horizontally via the kiezies. The biggest irritant in both models is the question of hierarchy between the elements. Berlin's strong kiez structure and the lack of a clear center is frustrating at times when one need to meet friends and relatives that live in other kiezies. Where does one meet in a city without a center? This total absence of a center is the absolute proof of an urban field — a Green Archipelago.

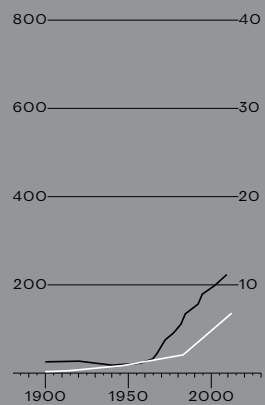
Of course this archipelago is far from being planned. When it comes down to urban planning, Berlin is set on auto-pilot. Unnoticed and unwillingly, Berlin followed the "City within a City – Green Archipelago" concept developed by a team led by O.M. Ungers at a design seminar in 1977. Since its reunification, Berlin has followed "parallel actions of reconstruction and destruction" which led, according to Rem Koolhaas, to an "archipelago of 'architectural' islands floating in a post-architectural landscape of erasure, where what used to be city is replaced by highly charged nothingness. The kind of coherence that the metropolis can achieve is not that of a homogeneous, planned composition. It can be, at the most, a system of fragments, a system of multiple realities."

Nothingness is the medium in which the archipelago of Berlin is thriving and nothingness is what is surrounding it.

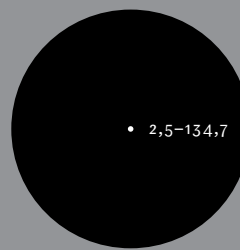
Berlin is the antipode of the ideal city. Berlin is everything but ideal and everything that is real. If there would be a concept for a real city, it would be and is the history of Berlin. Paradoxically, the absolute real as well as the absolute ideal city are islands; Berliphery. Two cities that feel the loneliness, eccentricity yet exclusivity, of the existence at the two opposite ends of a Gaussian curve.

Istanbul

10.95 MLN PEOPLE. 13470 HA



53,9 **PAR**





The City Still Too Big to Fail?

Onur Ekmekci

The expansion of Istanbul to become one of the largest metropolitan areas in the last several decades is nothing short of compelling. Throughout its 2,600 year existence, the city has always been a focal point and refuge for new settlers in search of a new life and opportunities. Interest in the city, for the most part, has continuously translated into growth in the city's population and land, especially since 1950s, when Turkey's urbanization accelerated to unprecedented levels. Turkey's shift from a predominantly agricultural society to a newly industrialized nation arguably found the most potent materialization within the country's largest city. The numbers are staggering: Istanbul's population has reached 13 million in 2012 from 1 million in 1950. The city's land area tripled from 1,800 km² to 5,300 km² within the same period, making it the third largest metropolitan area in Europe, after London and Moscow. According to United Nations projected growth rates, Istanbul's population should approach 18 million by 2025. However, with the continuous migration from other parts of Turkey and the lack of carefully planned measures to prevent the city's further enlargement, the population will most likely exceed the UN's numbers, and reach 21 million in 2023 and 49 million in 2050, which would, at that point, account for almost half of the country's population.

Such a transformation will undoubtedly have dire ramifications on the symbiotic relationship between the city and the rest of the country. In this context, Istanbul's diffusion into its surroundings is not only a problem that needs to be resolved at the city level, as it has become a national issue as well, with the GDP of the poorest regions in Turkey equivalent to 20% that of the richest areas of the country. Thus, It is no wonder than the city continues to attract more migrants from Anatolia to this day. As a result of this imbalance, Deyan Sudjic writes in his article (aptly titled 'The City Too Big to Fail') that internal migration in Turkey has had "the effect of making the inequalities of Istanbul grow more acute, rather than less, even as it has prospered over the last decades." This prosperity of the city is quite visible in particular parts of the city, such as the Levent, or Etiler districts, where one can find high-rise office towers increasingly shaping the skyline of the city, along with the gigantic shopping malls and world class restaurants clustered around them, clearly symbolizing the growing economic affluence of the city and the country in general. Especially, in regards to numerous

shopping malls, one gets the feeling—similar to Fredric Jameson’s description of Hotel Bonaventura— that they “do not wish to be a part of the city, but rather its equivalent and replacement or substitute”. This level of disintegration of the city’s fabric is not limited to shopping malls or other spatial by-products of neo-liberal policies in the city center. On the other side of the coin, the city’s peripheries are “with settlements within its limits, in which Kurdish migrants from rural Anatolia tend flocks of sheep under the gaze of prefabricated concrete apartment blocks.”

Since the 1980s, neo-liberal policies, along with effects of globalization, have had profound impacts on Turkish politics and the economy, which in return have had direct influences over the urban form of the country’s largest city. As result of the neo-liberal policies, Istanbul has become more of a financial center, departing from its role of an industrial city to become a service-oriented city. This has resulted in the decrease of the labor force and the decentralization of industry and factories to the peripheries. However, *gecekond* neighborhoods (informal settlements), where the workforce for these industries live continue to exist in the central areas. As land values have skyrocketed in the central areas due to new demands from private real estate developers for office towers, shopping malls, or mixed-use developments, many living in the informal areas around the central areas came under the threat of losing their homes. This often meant forced eviction and the relocation of the urban poor from the central areas to the peripheries, where the newly constructed mass housing projects were located. To justify these so-called urban transformations, the official statement, by Prime Minister Erdogan, was that such informal areas were considered “cancerous districts embedded within the city” and they needed to be cleaned up. The high-rise mass housing of TOKI (Housing Development Administration of Turkey) is, in almost all the cases, located in isolated areas, devoid of decent public transportation networks, far from central areas where the jobs are, with insufficient social facilities for the mostly migrant Kurdish people, especially children and youth. “Their depressing environments and tasteless building quality” are particularly manifested through big cracks on the walls of newly built buildings, and poorly designed, inactive public spaces. One commonly sees, as in the case of *Bezirganbahçe* Housing Project, the bathrooms dripping to lower stories, elevators not working, tiles falling down, or trouble with kitchen sinks (unresolvable problems since the families have no means to pay for the repairs, let alone their rent installments). Apartments are often too small for large families, resulting in the use of kitchen floors as bedrooms. In an ironic way, these housing projects are reminiscent of the modernist “towers in the sky,” which were used in the developed world in the last century and for some time now have been considered an unworkable typology. For a city that claims to be “global,” this is contradictory at best, to see these dated, highly problematic mass housing schemes popping up all over the city today.

For a city that claims to be “global,” this is contradictory at best, to see these dated, highly problematic mass housing schemes popping up all over the city today

While the center became difficult for the lower income families to survive, it has at the same time developed into an undesirable area for high-income groups who, due to the ‘low quality of life’ caused by factors such as lack of open spaces, greenery, traffic or increasing crime rates, left the city center. Many of them moved to high-income housing areas, so called ‘gated communities’ developed in the northern parts of the city, where the natural resources and water basins are. The problem of these developments (aside from their homogenous and exclusive nature) is that, in most cases, they are not integrated into the overall metropolitan master plan. Thus, the overall picture is that the peripheries of Istanbul are today home to both ends of the housing spectrum. This dichotomy generates a profound perplexity; even locals cannot comprehend the limits of where and how the city begins and ends.

In this context, what constitutes the periphery and how it is perceived is radically different, especially for the people who are forcibly confined to mass housing projects. Due to economic hardship and the resultant immobility, the kind of Istanbul these people experience can be considered extremely limited, consisting of merely tens of identical highrise blocks standing next to each other, shaped by profound poverty and isolation. Under these circumstances, dissonance between the center and periphery of the city is increasing; many fear that it will potentially generate grave economic and social conflicts and in the long term, ghettoization. According to Yves Cabannes, Chair of the Development Planning Unit at UCL and the chairperson of the UN Advisory Group on Forced Evictions, the mass housing projects in the peripheries of Istanbul will generate “serious problems and will be knocked down” in 20 years or less. There are already signs of these social problems with people unable to pay their mortgages. In some housing projects like Bezirganbahce, young children are taken out of secondary schools and put into jobs, such as those at shoe factories, to provide financial support for their families. On top of this, deeper ethnic divides (Turkish-Kurdish polarization), and the loss of highly crucial solidarity bonds and neighborly relations that used to be the main component for survival in the informal areas are becoming very serious.

Such issues surrounding these mass housing projects already reveal how the city’s peripheries are developing into highly problematic enclaves. Instead of coming up with strategies that could reduce the widening gap between the center and periphery, further reckless projects are being planned out and implemented, clearly preparing the path for catastrophic results in the long run. One of these projects is a controversial bridge over the Bosphorus strait. The foundation stone-laying ceremony for Istanbul’s third bridge over the Bosphorus strait, named after a divisive Ottoman Emperor, Yavuz Sultan Selim, was held on

May 29th, 2013. The new bridge (the 9th longest suspension bridge in the world), costing more than 4 billion USD, has already raised eyebrows since the plans were made public few years ago (though there have been talks about the project since the 1980s). Aside from the widely shared notion that the bridge will have little or no effect on the transportation problems of the city, what makes this project highly problematic is mainly its location, and the fear that it will expand the city's already stretched peripheries even further along the north-south axis. The new bridge is being built on the northern edge of the Bosphorus strait, where it will pass through precious, scarce green forestry and water reservoirs. The majority of Turkish urban planners and environmentalists are in agreement that the bridge will lead to the rise of more informal developments taking place along the arteries that connect to the bridge (similar developments occurred after the second bridge over the Bosphorus in later 1980s). Cutting through the non-urban, vital areas of the north many fear will, in return, produce irreversible ecological damages on the city's water supplies.

On the other hand, one cannot overestimate the political importance attached to projects like the third bridge. Historically, the idea of 'bridging' two parts of Istanbul, the European and Asian sides, as a project, has always been more than merely a logistical and infrastructural intervention. Rather it held profound geopolitical metaphors. An article in *The Daily Telegraph* (UK) once announced: "Straddling two continents, the city has been the gateway through which Eastern influences have reached Europe, as well as the West's window on the Orient, Asia and the Islamic world." As orientalist as this may sound, Istanbul municipalities and the national government have always played on the city's superb geographic location on two continents, using similar catchphrases to promote its unique condition of being a 'gateway' between two civilizations, East and West. Beyond the political metaphor attached to the notion of bridging two continents, one might argue that the third bridge, in essence, symbolizes the unsatisfying need for the central government to expand the limits of urbanized areas of the city, and consequently make more lands available for further development and profit; no matter the social, political, and ecological consequences.

In order to stop inevitable chaos, the city's problems need to be examined at the national and metropolitan regional scale, and not only within its metropolitan borders. Huseyin Kaptan, a prominent Turkish urban planner, summarizes this issue: "The planning of metropolitan Istanbul is never limited to the borders of Istanbul. Today, Istanbul single-handedly shoulders half of Turkey's economy and exports. When you factor in Gebze, Tekirdag, and Izmit, there is a great industrial density that embraces 50% of the country. Transportation systems are also a part of this. Geographically, metropolitan Istanbul, Izmit, the Marmara Sea and Thrace are a whole. Without

recognizing and knowing this synergy, you cannot identify Istanbul and therefore you can't plan it. Istanbul consumes all of the region's water. So, it is impossible to define the metropolis only by its own borders." Following Kaptan's words, it appears crucial to evaluate every grand, infrastructural project or decision concerning Istanbul (like the third bridge) not only for the potential effect within Istanbul's metropolitan border, but also to the a larger region. Essential in establishing a reciprocal relationship between the city and its surrounding neighbors, questions must be asked: "Is this project going to have negative ramifications over the surrounding region?" Or: "Would this project help Istanbul become more self-sustained in the long run?" Clearly, it is important also to invest in other cities around the Turkey. As long as Istanbul's 'share of the pie' in Turkish economy stays the same, it will remain impossible to contain the growth of the city.

There also needs to be a stronger emphasis on creating sub-centers within the city and to diminish the mono-centric nature of the city. In doing so, it is crucial not to repeat the revisionist strategies of the urban renewal projects in the central areas that undemocratically relocated the urban poor to mass housing projects in peripheries. Projects concerning valuable, prime land in central areas need to be developed in coordination with the people living there, providing them viable solutions rather than exiling them. Without a radical change in the urban policies that marginalize the urban poor, there is no doubt that the transformation and restructuring of the center-periphery relationship in Istanbul will increasingly promote a stronger sentiment of "us and them" in spatial terms. Projects like the third bridge only intensify this highly problematic situation.

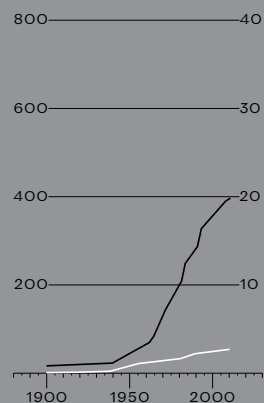
Lastly, perhaps the biggest concern surrounding Istanbul is the reckless way it has been managed in the last decade. Top-down decisions with the attitude of 'government knows best' have become the norm in developing projects for the city; increasingly garnering negative reactions. "The broader criticism is this government's, and, in fact, personally, the prime minister's rhetorical and political use of mega-projects as a PR campaign that turns engineering into political capital and silences opposition," said Sibel Bozdogan, an architectural historian. She continues: "For them, roads,

tunnels and bridges are unquestionable instruments of progress. Any criticism or concern regarding, for example, historical heritage, environmental, or social justice, or, in this case, even safety — all of this is dismissed as subversive." In this dystopian context, the views of different parties, including urban planners, architects, environmentalists, NGOs and ordinary citizens, are completely ignored when implementing highly questionable projects like the third bridge, Canal Istanbul, or the so-called pedestrianisation project of Taksim Square.

Speaking of Taksim Square, intense protests that occurred in June 2013 over the preservation of Gezi Park, a small and rare green space at the core of the city, were emblematic in the way they showed the frustrations accumulated overtime and the reactions the people had towards the controversial projects concerning their city. It was also obvious: there is urgent need for a higher level of transparency and participatory structure within the urban development processes for the city in order to save the city from irreversible 'chaos' in the near future.

Mumbai

19.74 MLN PEOPLE. 5460 HA



9,0 PAR

6,1-54,6



61 км²

- Administrative City Border
- - City Center Area
- - Territory marked on tourist city maps
- Urbanized Area of the City

0 2,5 5 10

Twisted Peripheries: A Blob of Spit

**Matias Sendoa Echanove
& Rahul Srivastava**

Beyond Center and Periphery

India was once described as the fertile soil from which new civilization-al breeds emerged. Mumbai may well be portrayed as a city where so many things come together in the most unexpected of ways, producing new global-local vernaculars rooted in far-off villages and wired up to de-territorialize informational clouds at the same time. Urbanists and architects have always loved to produce conceptual archetypes. These often reduced messy, complex realities into one simple image. For instance, Cedric Price has playfully described the medieval city as a boiled egg with a neat internal hierarchy and a hard shell delineating the inside from the outside. In his worldview, the modern city is a fried egg, with a clear defining core and a sprawling, unruly periphery. The postmodern city becomes a scrambled egg, where everything gets mixed up. The core explodes into darker chunks in a yellowish spread. The dualistic notion of a core and a periphery gets lost in a blur of movement and information that connects everything indiscriminately. Along with it goes any pretention of producing or identifying urban form. Price's scrambled egg city is reminiscent of Georges Bataille's notion of the 'informe' (sometimes unsatisfactorily translated as "formlessness" or worse, "informal"). The informe challenges academicians' urge to label and categorize what they see. Price's postmodern city resembles nothing. It is informe, like a "spider or a spit", to use Bataille's examples of informe things (1929-1930: 382). It is tempting to describe Mumbai's urban form as scrambled egg, a spider or, rather cheekily, as a blob of spit.

The analogical power of the spider and its web has of course been enhanced with the advent of the World Wide Web, the spontaneously developing structure of which has been researched and represented ad nauseam. One of the most appealing features of the Web is the absence of central control. Governments can, as we know now, hack into databases and even censor some of the new information that keeps popping up. But they can't foresee its evolution or shut it down. The Web has no periphery. One can be excluded from it altogether, but within it there is no subaltern space which would be dependent on a core. Structurally, the Web is made up of an infinity of interconnected cores or nodes. The hierarchical distinction between nodes is simply provided by the number of connections each node has with other

nodes. Content on the Web is also user-generated, just as Mumbai's neighbourhoods — which are being reshaped by both an absurd, surreal estate market responsible for its vertical makeover, and the efforts of millions of "slum-dwellers" who rebuild and improve their tiny homes day after day. But perhaps the humble spit is a better analogy for Mumbai. The city to some is a disgusting, incomprehensible thing. Polluted to the point of being frankly toxic, arteriosclerosed by traffic jams, overcrowded and overbuilt, corrupt and rotten, dirt poor and filthy rich at once, unbearably hot and humid most of the year and drenched and muddy the rest of the time. Our love for the city is a perverse one for sure — we love its apparent chaos, which constantly stimulates our imagination. And for us the question is not "How does it work?" as much as "What does it allow us to do?"

Mumbai's appeal is not to be found in its glorious colonial past, or in its shining, bubbling and speculative present. Attempts at containing its growth (by encouraging rural self-sufficiency as in the post-colonial Gandhian development strategies for India), at decongesting its crowded dwellings and roads (by creating a twin city — New Mumbai), or attempting to transform it into a "world-class city (by razing its slums and replacing them with high-rise housing projects) have all miserably failed. Mumbai defies planning like few other cities do. The city's strategic "development plan" is notoriously flawed. It has been described as being "characterized by non-implementation" and as providing "a ground for denying basic services to the slum" (Bhide 2011: 79-81). The fact that over 60% of Mumbai's residents live in "slum areas" characterized by poor public services and infrastructure only attests to the inability and unwillingness of the authorities to "plan", or simply to manage the city's growth.

At the macro level, Mumbai is a 20 million-strong urban agglomeration, where the center and the periphery seem to have disappeared in an enigmatic blur. The historical colonial center built by the British throughout the eighteenth century on the Southern most island of the Mumbai estuary (long before the many islands that compose the city were connected and before Bombay was renamed Mumbai), is now an old city. While the old center retains most public institutions and some important bazaars, businesses and corporate houses have moved to areas that used to be suburban but which are now central in the agglomeration. It is not that the center has shifted as much as it has exploded into various locations. At the micro level we find relationships of dependency reproduced all over the city. The most archetypical relationship being that of the upper-class high-rise building served by the slum next door. These relationships, usually rooted in old caste histories, remind us — as Umberto Eco puts it — that our civilization has never quite left the Middle Ages. The cathedral and the bazaar, the castle and the village, the master and the servant are binaries that keep flashing before our contemporary eyes as we navigate Mumbai.

User-generated City

The history of Mumbai's slums and of the discourse around them is illustrative of that critical gaze, which far from promoting the rights of the people who live in them, has trapped them in the role of a poor and passive majority, kept down by the forces of capital. The archetype of the subaltern urban subject is itself a romantic oversimplification, reminiscent of images from Dickens and Zola's writings. It is deeply entrenched in a middle-class sense of guilt and paternalism towards the poor. The periphery, the shadow city, the slum, the informal settlements – all these terms hide a diverse reality which cannot be reduced to any one homogenized identity. What we see in Mumbai are neighbourhoods that do indeed fall out of the grid or spill over it. But their story cannot be simply reduced to one of victimhood and subordination. An understanding of the city based on its historical evolution, which would accept its inherent complexity and some of the contradictions it necessarily embodies, would go a long way in overcoming simplistic binaries, and may ultimately help improve the life of the poorest. Ideology and prejudice stand in the way of Mumbai's potential as a model of user-generated cities. They must be actively challenged at both practical and discursive levels. Ultimately, centers and peripheries are defined by priorities that the city's authorities and people bestow on them.

Nearly 400 years ago, the city's metropolitan region was dominated by a northern township where the Portuguese built their base from the 16th century onwards. At that time a fortified center ruled the villages and towns right up to the territory that comprises the bustling metropolis now. The old villages of Mumbai provided an alternative template to the British seaport-based urbanization that started in the late 18th century. Villages co-existed on the city's northern side, along with the Gothic colonial landscape in the south, and even mixed and merged with the residential bazaar towns around the port. The industrial and steam technology, which transformed urban horizons globally did the same to Bombay (as Mumbai was then known). The trains elongated its perimeters as they moved up north on Bombay's eastern as well as western side.

Mumbai is not a city that allows an authoritative structure to dictate terms. Users and residents have always preferred it scrambled, eventually making their own maps of centeredness and peripherals which go beyond the official map. For example, railway stations with their bazaars and street-markets created their own force of gravity and reshaped the way the city saw itself. If there is any structure to the city's geography, it is one that followed the movement of people as they circulated and moved around its railway systems.

Mumbai's Urban System and Polymorphic Growth

Mumbai has a very particular geography. It is like a very large Manhattan with limited possibilities for sprawl. But the urban system that it has developed around itself thanks to the railways is very deep. A large part of the workforce still keeps connections with villages thousands of miles away. People regularly travel to and fro using the very cheap facility of trains. This creates a peculiar circular urbanism in which the city becomes many things at the same time – a home, a second home, a dormitory, a site of

business, investment and markets. These identities are connected to the unseen world of the native place, the village or town of origin where ties to agricultural land remain strong. Sometimes people even return to work in the fields by taking leave from their urban jobs. This circular urbanism is made possible by the persistence of the family as a social and economic unit. If we had to list best practices in terms of urban life, we have to acknowledge the efforts of its ordinary residents who don't have much support from the State yet still make do with very little to produce a decent life and habitat for themselves. They are the main users of the city who generate its energies and physical forms day by day, at the most micro levels. The way they appropriate the city has been salutary and makes Mumbai a unique and dynamic city. The proposed legal tolerance of street hawkers for instance (through the proposed Street Vendors Protection of Livelihood and Regulation of Street Vending Bill, 2013), is a huge step in the direction of recognizing and accepting some of the existing urban features of Mumbai.

At present the city is seen in a skewed way — its vision is dominated by the 40% of so-called legitimate residents who live in rich neighborhoods and middle class suburbs. Their economy dictates infrastructural needs as well. Private car transport is privileged over public transport even though the Mumbai Metropolitan Region Development Authority has initiated new innovative railway services all across its landscape in recent years. These moves came late though, and are still way too inadequate to deal with the demands of the city at large. They also do not justify the disproportionately high investments that continue to favor private, car based transport. The city's global financial ambitions were the reason for the development and growth of the Bandra Kurla Complex, a move that was directed at creating a new center in the form of a commercial district in the heart of the expanding city. This replaced the older Nariman Point in the south, which now appears to occupy very peripheral real estate even though it was once among the most expensive areas to rent in the country. The shape shifting logic of the city, which responds directly to its physical growth, and which in turn is shaped by the needs of its citizens, keeps pulling it in different directions. A real-estate development property project in Powai that was built on land ostensibly meant for the poor is now a dominating skyline that pushes the attention of the city towards its northern central region in Andheri. Andheri is its own commercial hub rivaling the highly incentivized Bandra Kurla complex. On the eastern side, the city's old docklands, once the main driving force of the colonial city, appears to the eyes of the city planners as a derelict neighbourhood. Its apparently peripheral status seems to hide the potential of a future real estate and modern planners wonderland that makes them hunger for its territories ferociously. In contrast, the port authorities point out that its large open spaces encompass a vibrant, active port that services first and foremost the city itself. If it is forced out, the impact on the cost of commodities in the city would be considerable.

Yet, these are mild worries for ambitious urban designers, who want to turn the Eastern Waterfront, as they call this area, into a world class waterfront-oriented urban development that would change the frontiers of the city once more. This eastern waterfront development would connect to another grand project, the famed twin city of Mumbai called New Mumbai that was conceived in the 1960s by Charles Correa and Shirish Patel as a magnet to Mumbai's densely populated localities. Instead it became its own economic powerhouse, soon complete with a new airport, looking more closely towards the hinterland (especially the Konkan region) rather than at Mumbai. For the planners, the Eastern waterfront would be the uniting vision transforming the frontiers of the city once more, creating something new altogether.

Dharavi: Center and Periphery All At Once

The neighbourhood where our URBZ office is located illustrates this coming together vividly. Dharavi has often been described as an abject slum, peripheral to the modern city Mumbai aspires to become. Others see it as an entrepreneurial beehive with thousands of tiny manufacturing units and re-tails, shipping goods all over the world. Whatever it is, it certainly escapes clichés of urban poverty and marginalization. Once a fisherfolk village at the periphery of the colonial city, Dharavi is now at the geographical center of the urban agglomeration of Mumbai and minutes away from the Bandra Kurla Complex, India's place of choice for corporate headquarters. Dharavi is populated mostly by the lower caste that have migrated to the city two three or four generations ago in search of social and economic improvement. It is nonetheless representative of the situation of over 60% of the people living in Mumbai. They are the majority, occupying small patches of land all over the urban landscape representing altogether less than 10% of the city's territory. They are "slum-dwellers", doomed to be perennially peripheral in the imaginary of decision-makers and the media. To the elite and the middle-class, but also often in the minds of some of the people who live in the areas labeled "slums", this is an expression of Mumbai's backward past, a residue of third-worldness that has not yet been washed away by the speculative wave rolling over Mumbai with rising furor for the past two decades or so.

Middle-class Commuter Squalor

Interestingly, if "slums" are more centrally located in the city only because many of them have grown around existing historical villages that predated British colonization, many lower-middle-class residents—white collar and service workers who would never want to rent a home in an area categorized as a slum because of the stigmas associated with it—are pushed to the city's evermore distant edge. It is not unusual for people in Mumbai to travel for two or three hours each way to reach their place of work. Exceptional densities of the city result in similarly unusual transport patterns. By far the largest group of commuters in Greater Mumbai – about 55% – walk to work. Most of them are able to reach their workplace within 15 minutes or less, making the most significant contribution to the city's extremely low average commuting times of 25 minutes, a sharp contrast to the London average of 42 minutes. The distribution amongst other modes of transport

is less surprising. 22 per cent use trains and 14 per cent use buses as their main means of travel. Two wheelers account for 3 per cent, motor rickshaws and private cars each for 2 per cent of the commutes. These ideal numbers emerge from a conflicted scenario on the ground. There are different urban regimes that co-exist in close proximity and are responsible for producing such a dramatic reading of its urban transport habits. Since the majority of the city's population live in areas officially designated as slums, where homes often double up as working spaces, many people do not need to commute. They bring the travel-time statistics of the entire city down to that 25-minute number when the reality for a huge number of its daily commuters is no less than an hour and a half of one-way movement. The Wikipedia entry on Mumbai trains provides a bleak account of the situation:

Spread over 465 km, the suburban railway operates 2342 train services and carries more than 7.24 million commuters daily. Due to its extensive reach across the Mumbai Metropolitan Region, and its intensive use by the local urban population, the Mumbai Suburban Railway suffers from some of the most severe overcrowding in the world. Over 4,500 passengers are packed into a nine-car rake during peak hours, as against the rated carrying capacity of 1,700. This has resulted in what is known as Super-Dense Crush Load of 14 to 16 standing passengers per square metre of floor space. On an average, about 600 people die annually on the Mumbai Suburban Rail network: over the past 10 years (2002–2012), more than 36,152 lives have been lost on tracks and 36,688 people have been injured. A record 17 people died every weekday on the city's suburban railway network in 2008.

Both sets of data are accurate. But they make sense only when understood in the context of the city's special folded urban landscape based on its interwoven socio-economic and geographical texture.

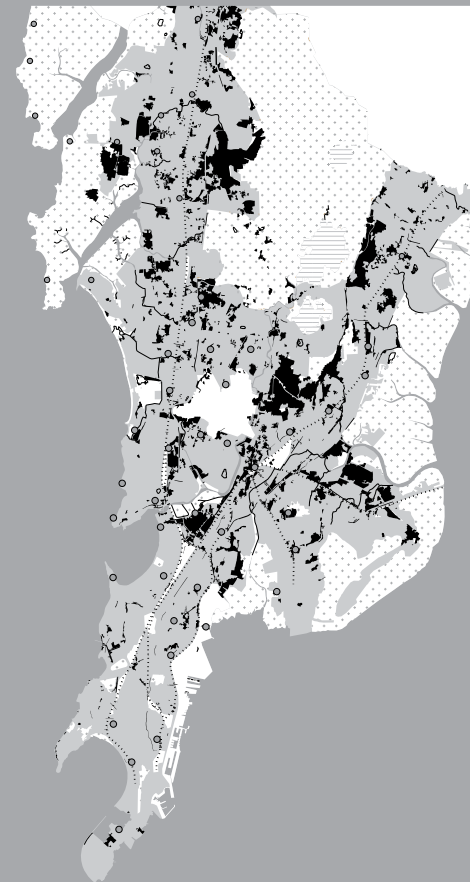
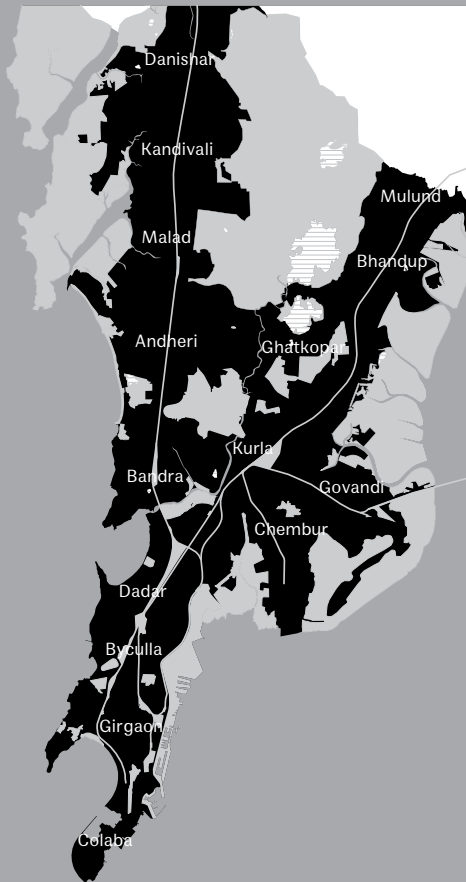
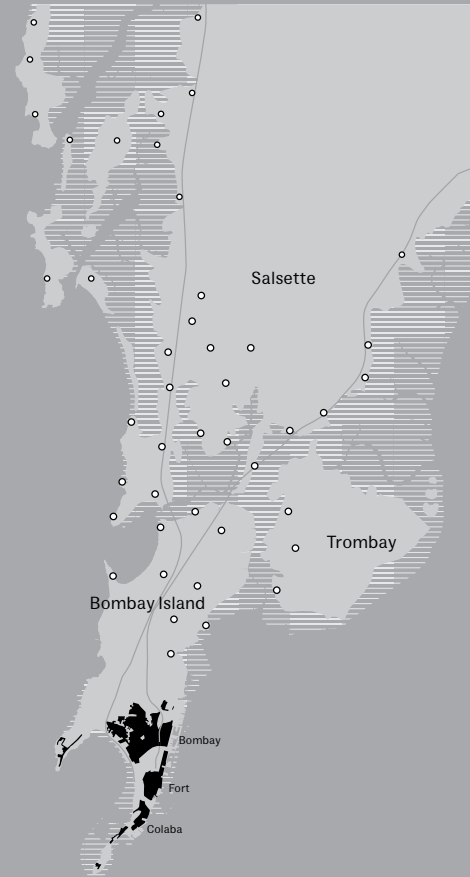
The Ground as Periphery

Mumbai has escaped attempts at planning from the top down and has therefore produced a city that does not fit the preconception of what a city ought to look like. The paradox of Mumbai is that the different ways in which the many peripheries can be identified do not neatly overlap each other. On the contrary, they seem to contradict each other. One can live in the economic heart of the city and yet be socially peripheral. The center/periphery lens in Mumbai is one that allows us to see this subversion very well. Right from its physical geography to the many imaginaries that constitute it, we see a city in which settlements, considered marginal, actually dominate its horizon. At a street level, the arterial roads are punctuated throughout by smaller lanes that create their own centers, and for this reason the city comes across as one that is difficult to negotiate. Small structures cluster monumental buildings and exert their own weight on the landscape. Villages can be found tucked away behind high-rises in all kinds of

neighbourhoods and economic energy may exist most potently in localities that some may consider depressed or marginal.

The city's spatial quality is full of unexpected moments. It can boast one of the highest urban densities in neighbourhoods such as Dharavi on one hand and a dense, tropical forest within its municipal limits on the other. If there is a social psychological foundation of urban physical form, the city's medieval heart can take much of the blame. Its middle- and upper-middle classes produce this scrambled geography because they love to be serviced by a huge labour force. They like their drivers, the caretakers of aged parents, their cooks and nannies. And they want their service providers to live close by. Thus wherever there are prosperous habitats, they are always interwoven with service-providing settlements. It is hard to classify the city into a neat stratified map showing where the rich or poor live. And along with habits, people also have aspirations. Urban ambitions are fuelled by powerful dreams and images. This is how worlds start to collide in uncomfortable ways. The folds that they themselves have created start to trip them and confused ambitions start to dictate the aspirations of the city as a whole. The best manifestation of this are the billboards that advertise a new core or center – up in the air. The most sought-after apartments are all about living high up, ignoring the ground beneath the high-rise's feet and looking over and above the mess, straight into the hazy seascape that is the mother of all such horizons in this water-locked city. The solid ground beneath the city seems to have become the new periphery. How does one map this visually – especially from the air?

1. Colaba
2. Cavel
3. Girgaon
4. Mandivi
5. Mazagaon
6. Tank Bundar
7. Parel
8. Sewri
9. Wadala
10. Sion
11. Dharavi
12. Dadar
13. Mahim
14. Worli
15. Mani
16. Marouli
17. Chembur
18. Colwad
19. Chimbai
20. Bandra
21. Santa Cruz
22. Juhu
23. Ville Parle
24. Irla
25. Vakola
26. Kalina
27. Kurla
28. Kiroli
29. Ghatkopar
30. Wankola
31. Wikhroli
32. Bhandup
33. Sahar
34. Marol
35. Chakal
36. Gundowli
37. Amboli
38. Aldea Mar
39. Versova
40. Goregaon
41. Orlem
42. Kandivali
43. Poinsur
44. Mount Poinsur
45. Malvani
46. Marve
47. Manori
48. Culvim
49. Gorai



Legend:

- informal settlements
- koliwad
- wild nature

Singapore

5.31 MLN PEOPLE. 5020 HA



800 ————— 40

600 ————— 30

400 ————— 20

200 ————— 10

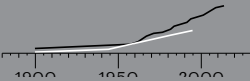
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PAR

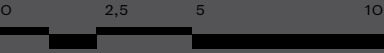


13,15-50,2





- Administrative City Border
- City Center Area
- Territory marked on tourist city maps
- Urbanized Area of the City



Less Iconic, More Just

Onur Ekmekci

“Starting after the Second World War almost from scratch,” Jan Gehl writes, “this city has over some 60 years, accomplished an impressive rise in the level of living conditions for urban dwellers and at the same time, accommodated a steadily growing population.” Singapore presents a formidable challenge when one attempts to build a candid portrayal of the city, beginning with the fact that Singapore, along with Monaco, and Vatican City, is one of the few city-states in the world. With its own autonomous government, and consisting of only a city and no hinterland, Singapore’s urban syntax differs fundamentally from most of the other cities in the world where, more often than not, there is a reciprocity between the city, its surrounding neighbours, its positioning in the national boundaries to which it belongs, and beyond. Being a island and a city-state, such mutuality does not exist in Singapore.

This small island, with an area of roughly 700 square km and five million residents, stands out as a unique example of hyper-dense urban development, generated by particular sets of political, social, historical and spatial conditions. Superlatives are often used, especially in government campaigns, to describe the city: greenest, densest, wealthiest, smallest and safest to name a few. Many also describe Singapore’s urban transformation as a success story. The Economist Intelligence Unit, for example, ranked Singapore as the 4th most livable city in Asia, while Monocle’s Livable City Index puts the country at the 15th spot in its worldwide ranking. The country also ranks highly in lists such as quality of life, competitiveness, or having the best business environment. One may, of course, question the reliability of lists like Monocle’s or the Economist’s, which are often based on biased data sets and convoluted parameters. However, it is hard to disagree with Gehl in regards to his assertion regarding the rise in the level of living conditions in Singapore.

Prior to the initiation of highly effective public housing schemes that eventually accommodated huge numbers of people in a relatively short period of time, the living conditions of the urban poor in Singapore in the 1950s was described as: “Acute overcrowding in dilapidated slums, appalling conditions of squatter settlements; bedding on wooden bunks or in rented cubicles; high rate of urbanization; grossly inadequate housing delivery system;

rapid deterioration in available space standards; crime, violence and drugs.” A quick look at Singapore’s urban environment today would reveal how far the country has come in successfully housing its citizens. On the other hand, the high living standards that Gehl indicates are the direct result of strategically planned economic and public policies (with strong top-down governance), along with a highly stable political climate present since the 1960s.

One of the most crucial factors in establishing Singapore as a financial powerhouse and one of the wealthiest cities in the world is arguably the strong emphasis given to urban environment and planning. Here, detailed master plans rule the city, ensuring that “everything that one can or cannot imagine is orchestrated, planned, and designed.” Furthermore, being a city-state, national aspirations turn out to be fundamentally intertwined with the way the urban environment is structured, which in a sense reflects the underlying belief that improving urban conditions and creating a livable city have a direct impact in attracting foreign investment and generating economic growth for the country. The better the urban environment is, the better the amount of foreign talent and money flowing into the country, or so it goes!

At the same time, one would assume that Singapore would affirm the negative attributes that are usually associated with “islandness” such as ‘being bounded,’ ‘separate,’ ‘hard edged,’ ‘remote,’ ‘detached,’ ‘small in size,’ ‘isolated,’ and ‘prone to externalities.’ While some of these may very well be true to a certain degree, Singapore has been relatively efficacious in turning these factors into advantages. According to Edward Glaeser, Professor of Economics at Harvard University, who has researched extensively the importance of dense urban environments, “Singapore’s success illustrates the irrelevance of acreage. The city-state grew wealthy not just despite its lack of land, but probably even because it had so little space. Precisely because Singapore had so few natural resources, Lee had to adopt sensible policies that would attract international capital.”

Whether the lack of acreage can be perceived as irrelevant to Singapore’s development is contentious. There is, however, some truth to Glaeser’s description of Singapore’s development. With no hinterland, land is in short supply, and Singapore governments have historically prioritized long-term urban planning as a quintessential tool that could help make the best out of the limited land available. As part of this approach, the Concept Plan, a strategic land-use and transportation plan for the next 50 years, along with the Master Plan, a statutory land-use plan that determines land use and density development for a period of 10-15 years, have been used to strategically determine what, when and where urban transformation and renewal projects need to be delivered.

Part of these plans have been to come up with smart strategies to expand the island's territory. A direct manifestation of this is Singapore's desire to expand its landmass, primarily through the reclamation of land. The reasons for land reclamation were firstly to build more public housing estates and to offer recreational facilities for a growing population, providing more space for increasing commercial and industrial activities, along with infrastructure needs such as expressways, the port and the Mass Rapid Transit system. By using the landfill method, Singapore reclaims land from the coast and swamps, and by merging small islands that lie off its coast. Today, reclaimed land from the sea accounts for about a fifth of the country's landmass. However, there is little or no more room left to expand towards the sea, especially since many of its neighbouring countries, including Malaysia and Indonesia, expressed discomfort over Singapore's reclamation activities. Nevertheless, in order to meet the population projection of 6.9 million in the next two decades, the government has plans for releasing land for housing and industry by closing golf courses and military training grounds, and paving over some of the island's nature reserves; this is projected to free up about 5,200 hectares of land.

One major example of such reclamation efforts is the development of The Central Area or Central Business District, which includes core financial and commercial districts of the island. The Marina Bay area, built up on land reclaimed from the sea since the 1970s, is located at the southern tip of the island, with a 360 hectare area being developed as a new growth district adjacent to the existing city center. Numerous construction projects have been completed in this area, including Gardens by the Bay and Marina Bay Sands, but many more are still under development. This vision for the Marina Bay is, according to the development's website, intended "to seamlessly extend Singapore's downtown district and further support the city-state's continuing growth as a major business and financial hub in Asia." Moreover, there is a strong emphasis in the vision statement that the new development would have the components of live, work, and play. Aside from the development of Marina Bay, there are several other projects that will have major impacts on the central areas of Singapore.

In his National Day Rally speech in August 2013, Prime Minister Lee Hsien Loong announced that two large land parcels, Tanjong Pagar container ports and Paya Lebar Air Base, would be redeveloped for homes and offices after 2030. The plans for the port area in Tanjong Pagar (all the container ports will be moved to Tuas just before 2030 when their leases expire) have already excited developers - a 1000 hectare empty plot with a prime waterfront location and proximity to Marina Bay could potentially create a new southern waterfront city with homes, public spaces and office towers. One way of looking at the highly publicized developments of Marina Bay is that the Singapore government is not only trying to enhance its global image and touristic appeal with these grand projects, but is also generating land that would allow space for the long-term expansion of the city center.

On the other hand, the problem with a signature project like Marina Bay is clear: it is more about the image it perpetuates - a national image-construction project - than what it ultimately produces for the whole of the city. With laser beams shooting endlessly towards the sky nightly from the rooftop of the Marina Bay Sands, designed by Moshe Safdie and supposedly the world's most expensive standalone casino property at S\$8 billion, including



FIG 1. Marina Bay and the CBD.



FIG 2. Singapore Port will move out by 2030 to be replaced by new developments



FIG 3. Tiong Bahru, one of the most popular central district built in the 1907s



FIG 4. Public housing estates are essential part of Singapore's urban fabric.



FIG 5. Punggol, located in the northeastern part of the island, is one of the newest HDB neighborhoods.

cost of the prime land, it is hard not to be overwhelmed by the sheer spectacle of the development. The vision statement gives the feeling that, when completed, one will see a 'fantasy land,' iconic and certainly spectacular, but hardly constructed in any inclusive manner. In the light of these developments, the relationship between the center and periphery takes a fascinating turn. The growing interest over the development of the central areas for its national image and capital gains, as seen by the Marina Bay development, demonstrates the growing separation between areas in the periphery and the center.

Since the 1990s, concepts of decentralization, a hierarchy of regional, sub-regional, and fringe commercial centers, have been introduced to Singapore's urban planning strategies to alleviate congestion and over-development in the central area. This shift also meant that many of the new HDB public housing estates are now located in what one might call peripheries or suburbs of the island. The result of the need to build bigger flats to accommodate growing population, a trend that began in the 1970s, locating housing estates outside of the city was seen as the only logical solution for the next generation of new towns. Punggol New Eco-Town followed this model being located outside the city, and showcases the latest HDB planning practices. It is a high-density residential suburb in the northeast of Singapore, with a current population of 50,000 people, expected to rise to 100,000 when completed. The estate, with a density of 30,000 people per square km, consists of sixteen-story high-rise apartments, with more or less the same architectural typology. Buildings sit on pilotis, which create void-decks used for community activities, such as funerals, or weddings, from time to time. In some of the buildings, however, the ground floor is partially allocated for community centers, kindergartens, and even living units. Multi-storey car parks are located in the middle of each block, with roof gardens on top, in most cases hidden from the main streets. In between the buildings, one finds well-designed green recreational areas for residents, including playgrounds, different pavilions and sport fields. Schools are located throughout the estate. Commercial development is minimal and limited to several shops and food courts located around transit stops, and a number of small shopping centers. The relative success of a new town like Punggol is especially remarkable when the notion of "public housing" all around the world has such a strong stigma attached to it. The quality of living in recently built new towns like Punggol is arguably high, thanks not only to efficiently designed residential towers and apartment units, but spaces in between these buildings, the public amenities offered, and the rapid implementation of public transport systems that connect these towns to the city center.

The 'periphery' in Singapore does not convey such a dramatically negative association, as in the case of Istanbul. However, feelings of isolation can undeniably be felt by some of the residents living in the suburbs. Most of the new towns developed in the peripheries are supposed to be self-sufficient, and well-connected to other parts of the city, as mentioned earlier, and for the most part, they are. However, one of the main factors that made public housing phenomenally successful in Singapore is that many of the earlier housing estates are centrally located and well integrated into the city fabric, as in the cases of Queenstown, Toa Payoh, or the housing estates around Tiong Bahru. In other words, up until this day, people with different levels of

income were able to live in or relatively close to the city center, thanks to public housing. Of course, it takes time for the new housing estates to be fully integrated into the surrounding areas, which may very well likely to be the case for developments like Punggol, considering how fast the urban transformation processes are in Singapore.

The ultimate challenge Singapore faces in the long run is whether affordable public housing will still find a place as part of the new urban redevelopments in the central parts of Singapore. It is crucial to set the right balance so that the periphery does not become ghettoized, while the central areas gain a gentrified, exclusive status, devoid of affordable housing serving larger portion of the public. There are signs and attempts to include public housing in the central areas. The affordable public housing project called “The Pinnacle@Duxton” demonstrates “how public housing could be built at very high density to optimise the use of prime land” in the central areas. The most important aspect of the development is, without doubt, its highly expensive, central location. Bridging the periphery and the center through projects like the Pinnacle is imperative to maintain the socio-spatial harmony that has been arguably achieved over the last decades.

At the same time, there is a different dimension to the discussions about the periphery of Singapore beyond the national boundaries of the island. Singapore and Malaysia have had a tense relationship since the former gained its independence in 1965. There has been intense ‘neighbourly’ competition, not only over highly valuable resources like water, but in attracting foreign investment as well. Despite the tumultuous relationship, there is a joint urban development in the Johor region, located in the southern part of Malaysia, just north of Singapore. Since Singapore is running out of land to expand, there is also a joint effort to develop this area into Singapore’s new hinterland to house multinational companies, industries, and housing. According to the Wall Street Journal, “If the Johor region in southern Malaysia thrives, the thinking goes, it also will help Singapore by ensuring big companies to stay in the region instead of moving lower-cost countries.” Developments like this raise the obvious question whether the periphery of Singapore needs to be considered beyond the national borders of the island, and then re-evaluated within a larger region. As long as Singapore needs more space and a hinterland, there will always be a question where Singapore starts and where it ends.

Less Iconic, More Just

In a global context, there are certainly lessons that other cities can learn from Singapore. Many cities and their peripheries suffer from the lack of strategic and long-term planning, which in turn, result in catastrophic social, economic and environmental problems. In these cities, decisions in

regards to urban planning are made in a mostly populist and random manner, targeting short-term goals, far from being justifiably based on logical or scientific reasoning. Singapore, on the other hand, has prioritized its urban planning and redevelopment as one of the fundamental pillars of its development. Well-functioning state-run organizations like HDB or URA have been given insurmountable levels of power and control over the island's urban environment since the formation of the country. Successful public housing, vast amounts of well-maintained green spaces and advanced public transportation are the direct result of carefully planned long-term policies that have been produced with a great level of detail. However, managing a machine-like city, highly efficient, and with high levels of economic competitiveness may not be sufficient in the long run.

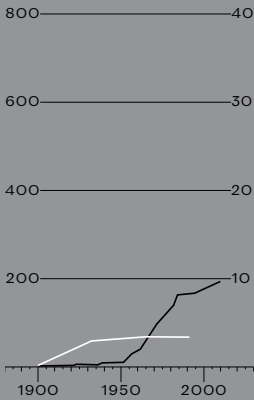
While Singapore has a lot to export when it comes to implementation or planning strategies of great urban projects, the city-state arguably needs to work on generating the conditions for a much more 'just city,' a city that is structured around democracy, equity, and diversity. One can argue that these three parameters are not part of the urban planning lexicon in Singapore, and perhaps this is the right time to make sure that they are. Singaporeans have already started expressing their unhappiness about inequality, low wages, the high cost of living, and overcrowding as a result of highly liberal immigration policies of the country. On top of these grumbles, the way domestic and foreign workers are treated, with almost no rights, along with the growing resentment and a degree of xenophobia directed towards them in public, show signs that social stresses cannot be ignored any longer. In his last national day speech, Prime Minister Lee acknowledged the uneasiness felt by the lower-income groups, stating that "technology and globalization are widening our income gaps and in addition to that, we have domestic social stresses building."

Having already achieved the status of a global city and high levels of economic competitiveness, Singapore arguably needs to pay more attention to strategies that would cultivate stronger urban and social justice, and put more efforts on diminishing increasingly prevalent inequality, rather than having its future determined only by the economic growth and performance. In spatial terms, it is important to remember that most of the population who experience the challenges of growing inequality lives in HDB estates in the peripheries of the city. One could argue that while the developments over Marina Bay or the future port city areas would likely polish the international image of Singapore; it is highly unlikely that they will in any way help to satisfy the needs or problems of the overall public in general. Moreover, it wouldn't be far-fetched to say that these projects would most likely create more alarming disparities between the central areas and periphery. Developing new affordable housing projects, not only in the peripheries, but also in central areas could prevent central areas from becoming exclusive enclaves that would cater only to a population with the highest levels of income. What Singapore needs at this point is less iconic developments and more emphasis on integrating successful public housing, initiatives and traditions the country has displayed in the last decades, to the rest of the island.



Jakarta

9.6 MLN PEOPLE. 6620 HA



16,6 **PAR**





- Administrative City Border
- - - City Center Area
- - - Territory marked on tourist city maps
- Urbanized Area of the City

0 2,5 5 10

Peripheral Pressures

Deden Rukmana

Jakarta — An introduction

Jakarta is the capital of Indonesia and the largest metropolitan area in Southeast Asia with tremendous population growth and a wide range of urban problems. The overall population of the megacity of Jakarta grew in the 20th century from about 150,000 in 1900 to about 28 million in 2010. The megacity of Jakarta is also called *Jabodetabek*, taken from the initial letters of the administrative units of Jakarta, Bogor, Depok, Tangerang and Bekasi. The center of Jabodetabek is Jakarta, also called the Special Capital Region of Jakarta (Daerah Khusus Ibukota Jakarta) and covers a total area of 664 square kilometers. The inner peripheries of the megacity of Jakarta include four municipalities (City of Tangerang, City of South Tangerang, City of Depok, City of Bekasi), whereas the outer peripheries of Jabodetabek include the City of Bogor, Tangerang Regency and Bekasi Regency. The megacity covers a total area of 5,897 square kilometers (Hudalah and Firman 2007). Jakarta has been the capital of Indonesia since the Dutch colonial era. The population of Jakarta in 1900 was about 115,000. In the first nationwide census of the Dutch colonial administration (1930), Jakarta's population increased to 409,475. In the next ten years, the population increased to 544,823 with an annual growth rate of 3.30%. After Independence, Jakarta increased by nearly three times to 1.43 million by 1950. It increased to 2.91 million in 1960 and 4.47 million in 1970. The annual growth rates of Jakarta's population are 10.35% and 5.36% (1950–1960 and 1960–1970 respectively). The modern city of Jakarta was initiated by President Soekarno's strong vision to build Jakarta into the greatest city possible (Cybriwsky and Ford, 2001). He gave Jakarta Monas – the 132m high national monument and his most symbolic structure – spacious new government buildings, department stores, shopping plazas, hotels, the sport facilities of Senayan that were used for the 1962 Asian Games, the biggest and most glorious mosque of Istiqlal, new parliament buildings and the waterfront recreation area at Ancol. Such constructions continued under the New Order regime that began in 1967. Under this regime, Indonesia enjoyed steady economic growth, along with a reduction in the percentage of the population living under the poverty line (Firman 1999). From 40% in 1976, the levels declined to the official level of 11.3% in 1996. In 1996 6.9 million people in urban areas and 15.7 million people in rural areas lived under the poverty line. Jakarta grew

rapidly during this period of the New Order regime. The investment in the property sector, including offices, commercial buildings, new town development, and high-rise apartments and hotels grew substantially. Firman (1998; 1999) argued that Jakarta, by the mid-1990s, was heading towards global city status. Jakarta was the largest concentration of foreign and domestic investment in Indonesia and received US\$32.5 billion and IRP68,500 billion from foreign and domestic investment respectively during the period of January 1967 to March 1998 (Firman 1999). Jakarta is linked with other “global cities” in a functional system built around telecommunications, transportation, services and finance. A parade of tall buildings, one after the other, fill the major streets on both sides. They house the offices of Indonesian and multi-national corporations.

The economy crisis, which hit Indonesia in 1998 resulted in major disruptions of the urban development in Jakarta. Such monstrous crisis shifted Jakarta from “global city” to “city of crisis”. The crisis – commonly known in Indonesia as *krismon* - largely squeezed the economy of Jakarta. Domestic and foreign investment dramatically fell off. Many manufacturing and services corporations in the megacity of Jakarta closed and laid off their employees, resulting in the rapid increase of uncontrolled unemployment. In order to survive the *krismon*, a large number of workers shifted to become food traders or then engaged in other informal sector jobs. Street vendors – commonly known in Indonesia as *pedagang kaki lima* – increased rapidly from about 95,000 in 1997 to 270,000 in 1999 (Firman, 1999). In order to mitigate the impact of the *krismon*, in July 1998 the government along with the assistance of IMF launched a variety of social safety net programs. These programs included food security, employment creation, student scholarships and block grants to schools, targeted health care subsidies and community block grants (Sumarto et al., 2004). Political and economic reforms were also implemented during the recovery process. Civil unrest and political uncertainty heightened during the *krismon* gradually lowered during the recovery process. As of early 2005, Indonesia’s economic performance was more positive. The rate of economic growth of Jakarta was 5.26% per year over the period of 2001 to 2004 (Firman 2008).

Suburbanization in the Megacity

To understand the suburbanization in the megacity of Jakarta, it is essential to recognize the socio-economic dualism pervading Indonesian urban society. The manifestations of this dualism are the presence of the modern city and the *kampung* city in urban areas. The *kampung* (‘village’ in Indonesian) is associated with informality, poverty and the retention of rural traditions within an urban setting. Firman (1999) argues the existence of *kampungs* and modern cities reflect spatial segregation and socio-economic disparities. The growing numbers of migrants to Jakarta and poor Jakarta

Jakarta's megaregion population 1980–2010
(MLN PPL.)

TERRITORY	1980	1990	2000	2010
CENTRE OF REGION	6,50	8,39	8,26	9,60
JAKRARTA	6,50	8,39	8,26	9,60
INNER PERIPHERY	—	—	—	—
TANGERANG	—	—	1,33	1,80
SOUTH TANGERANG	—	—	0,80	1,29
DEPOK	—	—	1,14	1,75
BEKASI	—	—	1,66	2,38
OUTER PERIPHERY	5,41	8,88	7,31	11,20
BOGOR	0,25	0,27	0,75	0,95
TANGERANG DISTRICT	1,53	2,77	2,02	2,84
BEKASI DISTRICT	1,14	2,10	1,62	2,63
BOGOR DISTRICT	2,49	3,74	2,92	4,78
MEGAREGION	11,91	17,14	20,63	28,02

natives have produced new squatter kampungs on the periphery of Jakarta (Cybriwsky and Ford, 2001). Many construction projects in the central city also caused some residents of kampungs to be evicted and relocated to the periphery (Silver, 2008). The periphery also attracted migrants because of its improved infrastructures and facilities in (Goldblum and Wong, 2000). Leaf (1994) has identified the rapid growth of suburban enclave housing in Jakarta during early 1990s. The residential enclave for narrowly targeted moderate and high-income families characterized Jakarta's suburban area (Firman, 1998; Leaf, 1994). Located on the periphery of the city, these settlements were built in automobile-accessible areas with various high-quality amenities such as modern golf courses. High-income families in the central city also moved from the city in search of better living quality (Goldblum and Wong, 2000). The high cost of houses and the need for automobiles restricted low-income families from the suburban housing market. In addition to residential zones, the periphery of Jakarta is also made up of specialized zones of commercial and industrial enterprises. These areas complement the other districts of Jakarta: the central business districts on Thamrin-Sudirman corridor, the government offices around Medan

Merdeka, the international seaport of Tanjung Priok, and the growing network of freeways. Since the end of the 1980s, no new industrial parks have been developed in Jakarta (Hudalah et al., 2013). Initiated by a collaborative project of Bumi Serpong Damai in the early 1980s, the periphery of Jakarta was also the location of several new towns. The first new town of Bumi Serpong Damai was planned for an eventual population of 600,000 in a total area of 6,000 hectares; a project developed by several private developers and led by the largest private developer – the Ciputra Group.

In a number of these new towns, the State Housing Provider Agency (Perumnas) joined with private developers to assure some housing was targeted for low- and moderate-income families (Cybriwsky and Ford, 2001). Most of the new towns offered relatively few employment opportunities. Their initial concept was to create self-contained communities but this was barely implemented. Instead, the new towns became “bedroom suburbs for city-bound commuters” (Cybriwsky and Ford, 2001). The new towns were still heavily dependent on the central city (Firman, 1999; Silver 2008) and the development of large-scale housing projects intensified the daily interaction between the fringe areas and the central city of Jakarta. This worsened the traffic problems in metropolitan Jakarta.

The development of industrial zones in the peripheries of Jakarta also indicated a spatial restructuring that shifted manufacturing from the central city to the periphery. Firman (1998) reported that the central city attracted disproportionate investment in service industries, trade and hotel, and restaurant construction. The peripheries attracted most of the industrial construction. These include textiles, apparel, footwear, plastics, chemicals, electronics, metal products and foods (Cybriwsky and Ford, 2001). The massive development on the outskirts of the megacity of Jakarta resulted from a series of deregulation and de-bureaucratization measures enacted by the Suharto government in the 1980s (Winarso and Firman 2002, p. 488). The subsidized housing finance program and municipal permit system for land development also contributed to policies that have most benefited some developers strongly linked to the New Order regime (Leaf, 1994).

Flooding and Land Subsidence

Jakarta the megacity has experienced a tremendous population growth and faced a wide range of urban problems in the last few decades. Two major problems are traffic congestions and floods. Despite several programs to alleviate traffic congestion and flooding, the severity of traffic and flooding in Jakarta and its peripheries has not decreased. Floods have become a threat and bring increasing woes for Jakarta residents every year. In 2007, the worst floods in memory inundated about 70% of Jakarta, killed at least 57 people and sent about 450,000 fleeing from their houses. In 2008, floods

inundated most parts of Jakarta including the Sedyatmo toll road and nearly 1,000 flights in the Soekarno-Hatta International Airport were delayed or diverted, with 259 being cancelled. In 2012, floods inundated hundreds of homes along major Jakarta waterways including the Ciliwung, Pesangrahan, Angke and Krukut rivers and displaced 2,430 people (Jakarta Globe, April 5, 2012). However, annual flooding is not the only threat to Jakarta's sustainability — land subsidence has become a major threat and the exploitation of groundwater is one of the contributing factors that continued for many years. Land subsidence in Jakarta was first identified by researchers when the Sarinah bridge at Jalan M.H. Thamrin was found cracked in 1978 (Djaja et al., 2004). Since then, the measurement of land subsidence in Jakarta has been conducted and the rate of land subsidence has been increasing over years, particularly in the northern part of the city. In addition, the Jakarta Mining Agency reported variances over a 12-year period, from 1993 to 2005; the largest rate of land subsidence occurred in Central Jakarta. The above sea-level height of Central Jakarta was 3.42 meters in 1993. This dropped by 102 cm in 2005. The height of North Jakarta was only 1.46 meters above sea level in 2005, dropping from 2.03m in 1993. During the same period, West Jakarta, East Jakarta and South Jakarta have sunk by 2.11, 11.45 and 28.46 centimeters respectively (Jakarta Post, 28 April 2007). The Jakarta Mining Agency data showed that 80% of the city's land subsidence is caused by building particularly high-risk towers, 17% by groundwater exploitation and 3% by natural causes (Jakarta Post, 23 August 2007). It also indicated about 5,100 hectares of land in North Jakarta would be submerged in 2020 and another 6,000 hectares in 2050 if no action was taken to mitigate land subsidence (Jakarta Post, February 7, 2011).

The economy of Jakarta dominates its peripheral areas. In the daytime, the total population in Jakarta is much more than its population in the nighttime; the number of daily commuters in Jakarta is estimated at 5.4 million (*Suara Pembaruan*, March 9, 2011). Jakarta is estimated to lose US\$3 billion a year because of traffic congestion which can't be separated from the high growth rate of vehicle ownership (9 to 11 percent per year), unsupported by road development (less than 1 percent a year). Motorcycles are ubiquitous and can be acquired with a down payment of as little as \$30. The daily jams in Jakarta are getting worse; the peripheries are a "bedroom suburb" for the daily commuters of Jakarta, the center of government and corporate offices as well as commercial and entertainment enterprises. Most commuters go to Jakarta to work, study in universities, and for entertainment and cultural activities. The acute traffic congestion has also prompted President Susilo Bambang Yudhoyono to revisit the idea of the capital relocation outside of Jakarta.

Relocating the capital out of Jakarta could reduce urbanization and the rate of car ownership in Jakarta and its surrounding areas, but it will not completely address the traffic congestion in Jakarta. Most metropolitan areas in the world with the population of over 10 million have operated metros for years. The main idea behind developing a mass transportation system, including the TransJakarta busway and the monorail and Mass Rapid Transit projects, is to reduce the number of motorists and motorcyclists on Jakarta's streets. Drivers would be expected to use the mass transportation and reduce traffic, whereas new roads only attract more motorists. Not only would elevated roads stimulate induced demand and worsen traffic congestion, they could also jeopardize the livability of neighborhoods along them. However the new roads will only undermine the efforts to develop a mass transportation system in Jakarta.

In order to address traffic congestion, two flagship projects are underway, including the development of Cilamaya Seaport and the Mass Rapid Transit (MRT) project. For at least 20 years, the proposed MRT has been under discussion by the Jakarta administration and the government of Indonesia. Activists and non-governmental watchdogs have seen the MRT proposal as a possible bonanza for corrupt politicians and contractors (*Economist*, 4 February 2010). One MRT train will consist of six cars and be able to transport a maximum of 1,200 passengers per trip. The MRT Jakarta will operate 16 trains and transport 1.5 million passengers a day. The first MRT tract will connect Lebak Bulus, South Jakarta and the Hotel Indonesia traffic circle with six underground stations, seven elevated stations and a capacity of 173,000 passengers per day (Jakarta Globe, October 11, 2013).

Peripheral Pressures

The megacity of Jakarta is home to 28 million people. Nearly two-thirds of the population live in the peripheral areas, still highly dependent on the center of the megacity. They commute to the center for most of their needs including jobs, schools, healthcare and entertainment. The main infrastructures that connect the center and the peripheries are three highways including the Jagorawi, the Jakarta-Cikampek and the Jakarta-Merak toll roads. There are very limited public transportation infrastructures connecting the peripheral areas and the center of the megacity of Jakarta. For years, traffic congestion has become a chronic urban problem. Unless there are reliable, accessible and affordable public transportation modes that connect the center and peripheral areas, the traffic congestions in the megacity of Jakarta will not be resolved.

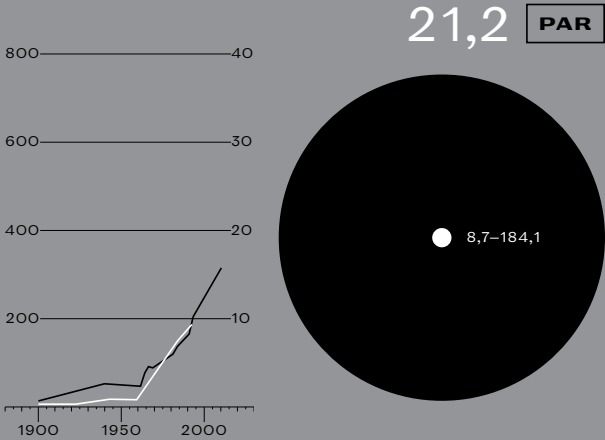
As long as Jakarta remains the primary growth machine of the nation, the economic growth of Jakarta will be strongly associated with the pace of Indonesia's economic growth, and will correspond to rapid urbanization in Jakarta. In addition, rapid urbanization in Jakarta was generated by an influx of migrants from other parts of the nation, particularly from poorer regions of Java Island. From 1995 to 2005, the average number of people who migrated to the peripheral areas of Jakarta was 1.6 million people per year. Poverty in rural areas of Java became a factor that pushed people from rural areas to urban ones. There is an inextricable link between the rapid urbanization in Jakarta and poverty in Java's rural areas. Alleviating rural poverty in Java will address not only the problems of the rural poor, but also reduce the pressures in and on Jakarta and its peripheries.





Beijing

15.59 MLN PEOPLE. 18410 HA





73 KM²

- Administrative City Border
- - - City Center Area
- - - Territory marked on tourist city maps
- Urbanized Area of the City



Go Figure: When is Too Much Too Much?

Jiang Jun

Part 1 Go Figure!

Beijing has been known for the extent of its centralization as the capital city of a centralized country. However, the impression is more about the centralization of political power instead of economic, social and cultural resources. Along with China's economic boom, the centralization of resources in Beijing has increased to such an extreme extent that we can hardly find another city in the world with a similar situation — Moscow might perhaps be the only one. Among contemporary global megacities, Beijing is placed top not because of its dense population, but for its concentrated resources. As the capital city of China, Beijing is the home of the top leaders of China, including the Central Committee of CPC (Communist Party of China, as well as its supreme institution of collective decision-making — the Political Bureau), the State Council of China (or the central government with over 60 ministries, committees, state bureaus), and Central Military Commission (CMC, with its four General Headquarters on Command, Politics, Armament and Logistics). A huge number of the 'local government representative-offices (LGRO)' in China — 971 LGROs by 2010, including 50 from provincial and special zone governments, 304 from civil governments, 189 from the different levels of institutions of local governments, 374 from district governments and 54 from other governmental units. Beijing has embassies from around 200 countries with diplomatic relations with China, as well as visa application centers or offices that serve (at least) North China. The world is mapped for Beijing by these embassies; global networks can be accessed, and diversified cultures promoted through diplomatic programs.

Where economic resources are concerned, The People's Bank of China, or the Central Bank of China, together with the financial regulatory departments under the State Council — including CBRC (China Banking Regulatory Commission), CSRC (China Securities Regulatory Commission), CIRC (China Insurance Regulatory Commission) — are based in Beijing. 245 of the world's top 500 enterprises — including the state-owned enterprises (SOEs) and foreign enterprises — have branches or offices in Beijing, including the 48 Chinese enterprises with their global headquarters, ranking 1st globally, and 87 foreign companies' regional headquarters by June 2013. As the center of the state, and where SASAC (State-owned Assets Supervision and

Administration Commission) is based, Beijing has an overwhelming share of the central state-owned enterprises (Central SOEs) under the supervision and administration of SASAC, most of which are among the world's top 500 enterprises (Fortune 2012).

The list of course goes on. As the base of the "Two Academies" — Chinese Academy of Sciences (CAS) and Chinese Academy of Engineering (CAE), Beijing has a much higher number of academicians than other cities, almost equal to the sum up of rest of China (911 from Beijing, 920 from the rest of China by 2008). Located in the northwest of Beijing, Zhong Guan Cun (Map-A10) has been seen as Chinese Silicon Valley, where the top IT enterprises — including the listed Chinese companies on Nasdaq such as Baidu, Sohu, Sina, etc. — are accompanied by top universities such as Tsinghua University and Peking University. However, the US model of Silicon Valley is still an underestimation as Zhong Guan Cun was originally planned along the USSR model of Naukograd (Science City). The Chinese Academy of Sciences (CAS, Map-A10) is also located there, along with its numerous research institutes on mathematics, physics, chemistry, microbes, space sciences, etc. The potential of Zhong Guan Cun, as well as its extension in Changping satellite city, lies in the combination and interaction of the science of Naukograd and the technology of Silicon Valley.

Among the 121 key universities included in the "211 Project (100 key universities of the 21st century)", 26 are from Beijing (11 from Jiangsu Province, ranked 2nd; nine from Shanghai, ranked 3rd), accounting for 21.5%. The university-based population (teachers and students) contributes to the quality and quantity of human capital in Beijing. China has the second biggest reserve of global think tanks next to the United States. According to the 2012 Think Tanks and Civil Societies Program, of the top 150 think tanks in the world, 9 of the 15 Chinese think tanks are based in Beijing (4 in Hong Kong, 1 in Shanghai, 1 in Taipei). Many of these think tanks are based in universities, including the Center for International and Strategic Studies (CISS) in Peking University, Carnegie-Tsinghua Center for Global Policy in Tsinghua University, etc.

As the base of "Eight Big Arts Schools", Beijing has the biggest art population: artists, directors, actors, script writers, singers, dancers, designers, etc. Because of the concentrated art resources in Beijing, most of the influential artists are based here. 39 of the "Top 100 Chinese Artists Alive Today" are based in Beijing (the number was 51 in 2012), including traditional artists such as Fan Zeng and Huang Yongyu, as well as contemporary ones like Zeng Fanzhi, Zhang Xiaogang and Fang Lijun. Further more, Beijing has the highest number of Chinese state-level performing arts groups, including those under the Ministry of Culture, as well as art troupes from Chinese armies. As the base of most of China's state-level media — Xinhua News Agency, China Central Television (CCTV), China National Radio

(CNR), People's Daily, etc. — as well as some of the most influential media of China (such as China News Weekly, Sanlian Lifeweek and Chinese National Geography), the voices from Beijing are more or less shaping the public opinions of China.

According to a list by Chinese Ranking List Network, eight of the ten most profit-making film companies are also from Beijing. Together with human resources from universities such as Beijing Film Academy (BFA), Central Academy of Drama (CAD, Map-A8) and Communication University of China (CUC), coupled with the TV media such as CCTV, Beijing is the Chinese equivalent of Hollywood in its prolific production of movies and TV plays within the Chinese film industry.

Last but not least, the ancient Beijing city had been the capital city for the recent 5 dynasties of China from the 10th century onwards. Most of its tangible heritages these days stem either from 13th century (Yuan Dynasty) or 15th century (Ming Dynasty), which includes some of the greatest projects in the history of mankind, such as the Forbidden City (Map-A2), the Heaven Temple and the Great Wall of China. This tangible heritage of the city itself is the most competitive and irreplaceable resource of Beijing.

Part 2

Why Beijing?

Beijing is notorious for its hazes, sandstorms, its shortage of water and risks of desertification, making the declaration that Beijing is rich, or even unique, in its natural resources, somewhat strange. But Beijing also has overlapping centers and probably the best way to describe them is in comparison with US cities: Beijing = Washington DC (where the White House/Pentagon/NASA are located) + New York (for Wall Street) + San Francisco (for Silicon Valley) + Los Angeles (for Hollywood) + Boston (for Harvard and MIT) + a historical city, dating back to the 13th century (hence older than the US itself). And all this in one city!

Historically, Beijing was chosen as a capital city because of its proximity to the agriculture-nomadism interface, where the national defence could be better deployed (which is why most of the long lasting dynasties of a unified China in the history chose cities along this interface: Xi'an, Luoyang and Kaifeng). This way, the more developed south and less developed north could then be better balanced. In modern China, there is another significance behind Beijing's geo-political location — a better balance between China's land power and sea power as city close to the coast. In one word, Beijing is what it is because of its critical position to best balance an unbalanced China. Beijing as a city with overlapping centers was the consequence of the following historical decisions:

- Beijing was selected as a communism capital city in 1949 (partly) because of its adjacency to (aid from) the USSR;
- China's decision to (apparently) copy the Stalin Model of planned economy from the USSR during the Korean War in the beginning of 1950s;
- Beijing's (and the central government's) decision not to have a satellite city to accommodate the new central government. San Li He Administrative Center (Map A6) was planned to decentralize the administration function (most of the ministries of the central government) from the city center, but only 1/10 of the project was finished before the official behind the project was defeated in a political event betraying the party in 1954.

The result was that the historical part of Beijing had to accommodate a much more centralized regime. Beijing as a historical city was overlapped with imposed political programs, which foreshadowed its systematic demolition decades later. We need to understand how Beijing went from a planned economy to planning market economy. Beijing as a capital city was designed for resource allocation - to concentrate the national resources for targeted regions, so as to meet the national strategy within a given geopolitical context. China's market-oriented reform in 1980s was (mis)understood as a neo-liberal one because of Beijing's attitude of 'letting it go' — offering no intervention in the free market experiment, but no central investment neither. Shenzhen (and Pearl River Delta at large), far away from Beijing, was the beneficiary of the resources (partly) liberated from national control and activated by the economic driving force from the Hong Kong engine, with Beijing as an observer. The reform was promoted northward, from the south to the north, from the coastline to the hinterland, when Beijing found it to be successful in its southern special zones - Shanghai in 1990s, and Beijing in 2000s — along with increasing investment and intervention. The transition of the 5 Year Plan was preserved in China, but it was re-named, however, as the 5-Year-Planning, to emphasize its dynamic interaction with the market economy. When the cake of China's market economy became big, the 'planner's hand' behind the market also benefited considerably. Although the autonomy of the other Chinese megacities - Shanghai, Chongqing, Shenzhen, etc. — has produced a great number of rich people overnight in a short time, to achieve something big, or indeed, great, Beijing cannot be avoided. It is here where you'll find the 'planner's hand' of the government-dominated market economy of China. From the 'planned economy' to the 'planning market economy', the city of resource allocation has become the city of resource concentration.

Part 3

Mega Investment & Mega Problems

Mega-investment comes after the mega-expectations generated by mega-events. Beijing, as a mega-capital-city, was boosted by the mega-investment of Olympics (Map-A9) since 2000s. Around 251.3 billion from the total 290 billion RMB (42 billion USD) investments went to long-term projects, including urban infrastructure (180 billion RMB), urban environment (71.3 billion RMB), etc. The investment naturally turned into the increase of urban values and the rationale for even more resources.

Having "all the resources in one city" has made Beijing one of the most inspiring cities in the world, where you can find everything — power, money, intelligence, art, sex, design, food, etc. — all at their maximum impact. However, it is not always inspiration that is generated from the furious interdisciplinary crossfire of the city, but also considerable externalities like

the following. Beijing is ranked 3rd in the most air-polluted cities in the world according to recent statistics (Asian Development Bank and Tsinghua, 2013) and among the top five cities with "the World's Worst Traffic — where soul-crushing gridlock is a way of life" (Foreign Policy, 2010). Land, along with its underground water, becomes a scarce resource when all the centers overlap. Meeting the rigid demands of the immigrant influx has driven Beijing to the top of house pricing and rent indexes among all Chinese cities (National Bureau of Statistics, 2013). With rising living costs and real estate related corruption and social disparity, there are serious impending risks for the city. Rocketing land prices have generated an urban development, more or less, beyond control. Beijing was planned as a city center surrounded by numerous satellite cities with ecological 'greenbelts' in-between. Now the city looks more like a single mass, organized around a series of rings; the consequence of irrational urban sprawl.

Despite all efforts to decentralize resources away from the city center, most of the new satellite cities around Beijing (mostly outside the 5th ring) have unfortunately developed into sleeping cities. Only two showed their potential for real decentralization – Changping (Map-B5) in the northwest, as the extension of Zhong Guan Cun (Beijing's Naukograd & Silicon Valley, Map-A10), and Tongzhou (Map-B1) in the east, where Song Zhuang village has become an affordable place for artists exiled from the city center by high living costs (Map-A13). These two satellites actually represent the two sides of Beijing – creativity and culture – and are more sustainable. Ironically, they became what they are precisely because of the marginalized situation of the bottom-up creativity and culture of people from downtown Beijing. Although there is no typical urban village like that in South China, where a piece of collective-owned, rural land is surrounded by urban entities with a higher density, the villages along the periphery of Beijing, including Song Zhuang village, have similar functions in providing affordable houses for low-income tenants from the expensive city center. However, the limitation of the collective-ownership of rural land, as opposed to the state-ownership of urban land, has legally made it impossible to develop private houses (like the dachas around Moscow) for urban citizens. Illegal houses, which are also called 'limited property houses' are secretly developed through illegal deals between urban citizens and rural peasants. Different from the tenants living in the humble village houses, the "owners" of these houses are usually middle class or above. Although riskier, their properties here are bigger, cheaper, far away from congestion and pollution. Legally or illegally, the peripheral villages function as informal providers of social housing, which is supposed to be the responsibility of the government, but clearly isn't yet.

The externalities of overlapping centers, and the embarrassing situation of a "Greater Beijing", demonstrate that the centralization of Beijing has already reached a critical point; the advantage of the city – as an accumulative place for resources – has turned into a disadvantage. The city is overloaded. What's more, it is hard to imagine the after-effects if and when Beijing should be attacked during a war. If Beijing is the brain (politically and technologically), blood (economically) and soul (historically and culturally) of China, the impact could be no less than a paralysis.

Part 4

Exodus or Way Out?

Beijing has only two agendas to make itself work: intensification and decentralization.

Further developing of public transportation to gradually replace the majority of private transportation in the urban area of Beijing. With housing prices rising steeply and car prices falling, it is (too) easy to have a car. In order to manage the housing market bubbles and traffic congestion, Beijing has imposed a restriction policy on the consumption of house and car with 'household registration'. This effectively blocks immigrants in Beijing from the two markets. No great cities can sustain themselves without immigrants. For an intellectual city such as Beijing, creative immigrants are the most sustainable resources the city should incubate, preserve and activate. Air and water are why most people living in Beijing have ambivalent affections toward the city: the city is so enjoyable, but so unlivable. In a long run, many of them will choose to leave if the pollution is not managed and brought under control.

Is the decentralization of Beijing a positive, transitional way of reconciling the tension between the central and local, the state and the society? What is the long-term capital relocation of the capital city to central China, ideally along the Huaihe River between Yellow River and Yangtze River? This is not going to be another Brasilia facing the wild west of undeveloped Brazil, but one with more water, less density and a location on the plain, surrounded by a series of Chinese mega-cities — (old) Beijing, Shanghai, Guangzhou, Wuhan, Xi'an, Chongqing. The Central Plain is where China as a civilization started, and where the name of China came from. As the capital city of a centralized country, Beijing was designed primarily for resource allocation, and ultimately for the balance of Chinese regional economies. When the national balance is deployed, it will be less about hard politics, but more about soft management. The Central Plain, surrounded by most of the important regions, is the ideal place for mega-city management.

However, before any capital relocation, a leaner structure of central government has to be realized for better governance of a more developed China; a China with more efficiency and less cost. It will need time for the reforms, including administration reform and the SOE reform; and it's likely to be a gaming process in-between departmental interests. The structure of the central government will determine the size and pattern of the new capital city. Beijing won't shrink however after the capital relocation. It is rather like removing the resources of "Washington DC" and "New York" from the city while retaining "San Francisco", "Los Angeles" and "Boston"; and all this together in a historical city older than the US itself!

When Beijing is redefined, it will be reborn.

How the City Moved to Mr. Sun

**Daan Roggeveen
&
Michiel Hulshof**

South of the double-decker motorway is a nine-hole golf course. The area immediately north evokes the impression of a recent bombing attack. A few buildings and remnants of structures remain standing amidst enormous mountains of rubble: houses, a small temple, a school. Abandoned objects lie scattered in the debris, toys, an umbrella, a shoe. Laundry dries in the wind from facades of still intact houses. Empty beer crates pile up in front of a small supermarket. These are the last signs of life in the otherwise mostly forsaken village of Jianling. Right next to the motorway, a nine step staircase flanked on both sides by large green plants leads up to the entrance of an untarnished four-storey house. As the front door swings open the smiling face of Sun Huanzhong appears. 'Welcome,' he says cordially. 'You have come to exactly the right place.' He leads us to a capacious living room on the ground floor resembling a surrealist movie set. Psychedelic landscapes and popular fantasy video game avatars completely cover the walls, staring down at the double bed placed smack bang in the middle of the room. 'Until recently I let this to an Internet café,' explains Sun the eccentric furnishings. 'Now I live here with my wife.'

Sun is a sinewy 65-year-old. He sits down at a large table. He rolls a cigarette using paper and tobacco. He has tanned skin and sturdy hands, is frugally dressed in slippers, pleated trousers and a T-shirt. He smokes like he talks: abundantly and dedicatedly. He recites an urban tragedy typical for the periphery of the Chinese city, a modern parable about peasants becoming city dwellers without moving an inch. It is a story about peasant cunning, creativity and small entrepreneurship, and about how these qualities founder in a system that uncompromisingly equates modernity with order.

In the 1980s Sun is still a simple farmer from Jianling, a village of twelve hundred families. He cultivates corn and keeps livestock: two pigs and several chickens, which he slaughters at Chinese New Year. An unpaved road separates his house from the farmland on the other side. It is a half hour walk from Jianling to the outskirts of Shijiazhuang, the capital of Hebei province. Shijiazhuang is a relatively young city that has come into being at the beginning of the twentieth century from the clustering of a dozen villages at the crossroads of two new railroad lines. In the 1950s and 1960s textile and chemical industries started to develop, and as a result the number of inhabitants increased to half a million. But in the end of the 1980's the

countryside still remains near. Vast cornfields surround the city, on which tens of thousands of peasants work every summer, protecting themselves from the sun by wrapping white towels round their heads. Nothing suggests that twenty years later Shijiazhuang will be one of China's most turbulent megacities.

At the beginning of the nineties, Sun senses change. Until then, China's economic growth has largely bypassed his village. Now, more and more migrants are arriving from other parts of the province to work in Shijiazhuang. They come to Jianling seeking affordable accommodation.

At the same time, the expanding city greedily eyes the farmland. Local officials offer compensation, but the amounts are low. 'Growing corn is more profitable.' Together with others Sun submits a petition to the provincial authorities against the expropriations, but in vain. His fields are sold to Century Park Golf Club, which aids a growing upper class in filling the new concept of 'spare time.' The new landowner quickly removes the corn, plants grass, digs ponds and builds bunkers. In an ironical 'transvaluation of all values' rich urbanites now work themselves into a sweat on the former farmland, exchanging the hoe for the golf club.

The authorities coax the sulking villagers with promises. There will be jobs for everyone. For every mu (660 square metres) of expropriated land, the expanding chemical and pharmaceutical industry is to create five jobs. The village has 3,000 mu of land. Sun quickly does the math and calculates this means fifteen thousand jobs – 'more than enough' for the 7,000 villagers.

The assurances never materialise.

Without land and jobs, the peasants have to rely on their own ingenuity.

'No-one took care of us. We had to do everything ourselves.' A new source of income presents itself: letting properties to migrant labourers arriving in Jianling in ever-larger numbers from the rest of the province. Sun makes a decision. He invests the 3,000 dollars received in compensation for his lost farmland into a building of his own design. In 2001 this self made architect sets to work. Without as much as having read a book on architecture, Sun creates a four-storey, 800 square metre multifunctional building with some interesting low tech sustainability solutions. His brother, a design engineer, helps him draw the building plan.

Ground floor: built to let office space with a shop front. On the right a separate entrance to a stairwell leading to the flats on the second and third floors.

First floor: office space, connected to the ground floor by an internal staircase.

Second floor: a natural stone tile floor four-room apartment for Sun and his family featuring a modern kitchen and bathroom. A glass loggia provides access to the bedrooms, and insulation for the house in summer and winter. On the street side lies a 2-bedroom apartment intended for letting.

Third floor: six rooms to let surrounding a central patio, with a tree growing from a minimalistically tiled planter in the middle.





On the roof accessible through a steel external staircase is the unique selling point. Here, Sun creates a rooftop field of organic farmland. The thirty centimetres of earth insulate the building and produce food for his family: eighteen different kinds of fruit and vegetables, including cucumbers, aubergines, various types of cabbage and several pomegranate trees. Sun places fish ponds in two corners of his field. 'Architects in Beijing talk about this kind of thing. I have gone right ahead and done it.'

He completes the house in the summer of 2002. For the first time Sun lights the grill on the roof. As he eats the fruits of his new fields, he looks out over his old lands, the golf course.

Sun is not the only one in Jianling to design his own home. 'Every family has an architect.' To make as much money as possible, almost all the peasants build apartment blocks. They demolish their farms of clay, straw and pig dung and replace them with buildings of three, four or five storeys made of concrete, with aluminium window frames and chrome railings. The tile patterns on the facades vary in pattern and colour. The placement of windows differs on each floor. Precast tympanums or columns adorn some of the buildings. Like Sun, other former farmers also build roof gardens. This is how Jianling develops into a typical cheng zhong cun, a 'village in the city' – a phenomenon linked to the ultra rapid urbanisation that can be observed in all budding metropolises in China. The villages stand out because of their diversity in form and character. Their skylines form organic wholes of individual expressions. The informal architecture starkly contrasts with the tight uniformity of other new districts, which, by contrast, express strong central control.

The more a 'village in the town' has the opportunity to develop, the less it looks like a traditional village. The buildings can sometimes reach heights of fifteen to twenty floors, which means they far outgrow the usual level of 'informal architecture'. Due to the high density of construction, veritable 'mini Manhattans' come into existence, in a great many different styles and forms. Living, work and recreation are not separate, but completely mixed up. Besides, above or beneath one another the buildings contain super markets, poultry farms, hostels, karaoke bars, slaughter houses, restaurants, warehouses, and clothes shops.

By 2004, thousands of migrant labourers have supplemented the 1,200 original families of Jianling, and the streets start to form a lively spectacle, day and night. The peasants have reinvented themselves as successful entrepreneurs. They form the capitalist upper crust of Jianling. Sun lets the rooms on the third floor to migrant labourers and the business premises on the ground floor to an estate agent. Later an internet café will move in. And so Sun Huanzhong, who has never owned a mobile telephone in his life, at sixty years of age becomes the landlord of a room with dozens of computers where Chinese youths play video games, day in day out. Three floors higher he does what he loved best: growing fruit and vegetables.

China's budding metropolises only reluctantly tolerate the urban villages. In the long run there can be no room for the former farmers' handiwork that does not suit the image of modernity envisaged by city administrators. They see demolition on an iconoclastic scale as the road ahead. The struggle takes place against a backdrop of a socio-economic model described by Yasheng Huang, professor in Economics at the prestigious Massachusetts Institute of Technology, as 'capitalism with Chinese characteristics.' He observes a struggle between two China's: entrepreneurial, market-driven rural China versus state-run urban China. Huang does not hide his preference

for the first China. 'When and where rural China has the upper hand, Chinese capitalism is entrepreneurial, politically independent, and vibrantly competitive in its conduct and virtuous in its effects. When and where urban China has the upper hand, Chinese capitalism tends toward political dependency on the state and is corrupt.'

There is no doubt which China has the upper hand in the budding metropolises. Expropriations are the order of the day. Residents refusing to leave are 'stubborn nails' blocking development. Or, as former mayor of Beijing Wang Qishan expressed it: 'We don't forcibly remove anyone, except those who don't want to go.'

The fate of the 'villages in the city' such as Jianling reflects the power of economic and legal institutions in China, where the individual always loses against the state, and creative peasant capitalism must inevitably yield to developers with the right government connections. The vibrant anarchy from below succumbs to a 'harmonious society' imposed by the party. The eighteenth century British Prime Minister William Pitt poetically expressed the antithesis to this system: 'The poorest man may in his cottage bid defiance to all the forces of the Crown. It may be frail, its roof may shake; the wind may blow through it; the storm may enter, the rain may enter – but the King of England cannot enter; all his force dares not cross the threshold of the ruined tenement.'

In other Asian countries with similar periods of ultra rapid urbanisation the swiftly expanding cities also swallowed villages. Their ultimate destiny illustrates the balance between property rights and the power of the state. Singapore knocked down almost all of the villages, but in Taiwan, South Korea and Japan they continued to exist and grew into regular city districts. Taipei's pulsating 'villages in the city' consist of hundreds of self-built blocks of flats, all different from the other. They are a confirmation in brick and concrete of democracy and rule of law.

In China, this system does not exist. One way or another, fair or foul, Sun Huanzhong's house must disappear.

The shaky position of the individual provides China with immense opportunities for the improvement of living conditions of its inhabitants. Few countries in the world pursue a reform agenda so energetically. The unchained cities do not only effortlessly tear down the self built creations of the farmers, but also the ruins and hovels that could eventually turn into slums. This is far more difficult in democracies such as Brazil, India or South Africa. Many western politicians and urban planners secretly envy China's possibilities to 'follow through' or 'get things done' that elsewhere would take years to complete.

In 2007 party secretary of Hebei province Zhang Yunchuan decides that Shijiazhuang must finally bid its peasant past farewell. Zhang personifies a twenty billion dollar project named 'Every Year a Great Step, Three Years of Great Change.' The province aims its plan at all big cities in Hebei,



but Shijiazhuang is to lead. The Three Year Plan has a clear schedule. First year: demolition. Second year: moving of factories to the city outskirts. Third year: commencement of construction projects to give the city a new face.

Shijiazhuang starts with the most far-reaching aspect of the three-year plan. No less than forty-five 'villages in the city', loathed for their disorderliness and uncontrollability, must be torn down, or, as the authorities prefer to say, 'redeveloped'. Expectations about the results are sky-high. An official circular sums up the imagined blessings: 'Redevelopment of the city is not only a way to properly utilise the available land, optimise the city structure and realise the urban development plan, it is also the best way to improve the living environment, to solidify the image of the city, to quicken modernisation, to stimulate internal demand, to hasten economic growth of the city and to stimulate social development. It is a project that will bring results in the present and earnings over the centuries.'

The phenomenal scale of the demolition soon becomes apparent. City dwellers come up with a joke: former prime minister Wen Jiabao flies in his airplane over Shijiazhuang. He looks out of the window, and shouts angrily at his staff: 'Why has none of you told me about the earthquake?!'

In 2008 rumours start to circulate in Jianling. Some inhabitants whisper that the village has been nominated for demolition. Not much later, real estate firm Wanda opens a sales centre a hundred metres from Sun's house. Inside, a model displays the design for a shopping mall housing Bentley, KFC, Adidas and Motorola. Behind the building, restaurants and cafés with outdoor seating are to line the car-free streets. Apart from shops and a multiplex cinema the plan envisages a five star hotel, 12 office buildings, and 28 thirty-storey residential towers. The total surface area covers nearly two million square metres, roughly eight times that of the Empire State Building in New York.

Wanda symbolizes China's new urbanism. In all major cities, the company is erecting 'Wanda Plazas': multifunctional complexes many hundreds of thousands of square metres in size. The Wanda Plaza in Shijiazhuang is to become the largest project of the Wanda-empire. The Wanda group is a subsidiary of China National United Oil, which again is connected to China's largest state oil company. The company prospers: founder Wang Jianling is the richest man in China. He is advisor to various provincial and municipal authorities, president of the China Charity Foundation and vice president of the Association against Unfair Competition.

In the room on the ground floor, Sun does not hide his anger. The village committee, he says, has offered him and his fellow residents a compensation package: for every square metre of their self-built property, they will receive 1.3 square metres in the residential towers of Wanda Plaza. That means two apartments, or even three. It sounds like a tempting offer, if not for the catch. The maximum compensation is 300 square metres. That will decimate Sun's property, his source of income. 'I have 800 square metres now.

And who can assure me I will be able to let these new apartments? What if Wanda goes bankrupt in the meantime?’

Sun focuses his fury on the Jianling village committee. He accuses them of corruption. Officials have allegedly squandered public money on pleasure trips, expensive cars and drunken evenings with women in karaoke bars, accumulating a debt of over three million dollars. They have closed a deal with the Shijiazhuang municipal authorities: in exchange for debt cancellation, they must ensure the participation of the villagers in Wanda’s plans. This allows the developer to keep his hands clean, while the village committee takes care of the dirty work.

‘I have no problems with corruption,’ says Sun, ‘but you have to take proper care of your own people.’

A delegation of residents has recently travelled to Beijing to submit a petition to the State Office for Letters and Conversations, to many ordinary Chinese the last resort in disputes with local authorities. An official has told them they are right, and that they can stay. Once home, however, the written statement from the capital does not dissuade the village committee. The villagers simply must leave. Some of the residents have voluntarily accepted Wanda’s offer. Their houses have already been demolished. Due to declining patronage, the internet café in Sun’s house has ceased to exist. With only 300 families left, the atmosphere in the village has hardened. The electricity has been disconnected, and the water has been cut off. Sun Huanzhong beats his fist on the table. All this injustice, he can hardly fathom it. He stands up and makes a tour of his home. Now Sun and his wife are using the former internet café as a home, the second, third and fourth floors are empty. They have moved the furniture to their son’s home, so they can leave immediately in case of emergency. Via the external staircase he reaches the roof, where the flowers are in full bloom. He looks out over the mountains of rubble that remain of his village. ‘I do not like to come here anymore,’ he says, ‘all I see is destruction.’

Sun Huanzhong does not wait for the eviction of his village. A couple of weeks later, he accepts the village committee buyout of 75,000 dollars. That may seem like a large sum to a Chinese farmer, but it is not a lot to the owner of an 800 square metre building near the centre of a speedily growing city of millions. He then moves into his son’s apartment at the other side of town.

He is just in time. A few months later, on 30 December 2009, a mob armed with hoes and machetes storms the village. Several days afterward, an eyewitness posts a report and pictures on the popular website Tianya. ‘They breaking into houses, smashing windows and threatening the villagers.’ By way of warning the gang beats one of the villagers so badly that it puts him in hospital. Bystanders phone emergency numbers, but, writes the anonymous blogger, ‘police cars simply drive past our village. Nobody is helping us.’ The accompanying photographs show various villagers covered in blood.

Harassment of residents refusing to leave is the order of the day in Chinese cities. Whether local authorities or developers hire the gangs usually remains unclear. That the topic disturbs many Chinese city dwellers is clear from the popularity of the online video game ‘stubborn nail versus gang of thugs,’ a hit on the Chinese Internet in 2010. To win the game, inhabitants use a wide selection of weapons to fight off as many property developers, officials and gangs as possible.

Cities do not always assimilate villages through violence or coercion. Some villages orchestrate their own urban metamorphosis. The village of Fangbei, several kilometres from Jianling, has opted for this route. 'Yesterday more than 320 villagers celebrated on the village square as they received the keys to their new homes,' reports the evening newspaper Yangzhou Wenbao on 22 September 2009. 'Fangbei is the first village of the Three Year Plan whose villagers have returned.' The article quotes 53 year old Wang Shuyan as being 'incredibly happy' with his new home: a spacious apartment on the sixth floor of building seven. The paper also cites Ren Yongjie, CEO of the Fangbei Group. 'The buildings have been completed on time,' he says. 'We have a total of three blocks of flats with 400 apartments each for returning families.'

Like all Chinese villages, Fangbei was a Maoist agricultural commune until 1978. In contrast to many other peasant communities, Fangbei never completely abandoned its collective character. The village administration has fully embraced Deng Xiaoping's masterful distortion of communist doctrine: 'Socialism is getting rich together'. After economic liberalisation the village established one business after the other: a printer, a metal factory, a fish market. The village chief adopted the title of CEO, while the villagers became shareholders receiving annual dividends. The names of the enterprises expressed their collective nature. Fangbei Group comprises Fangbei Industry, Fangbei Commercial Enterprise, Fangbei Property and Fangbei Youyou Fish Market. As the growing city engulfed more and more of the village agricultural land, increasing numbers of peasants found employment in village enterprises. In 1994 the last piece of farmland made way for the construction of a major thoroughfare.

The village administrators promptly built a strip of buildings beside the road and let them to night clubs. At the Dance Parlour, the Golden Triangle KTV, the Green Island Friendship Club and various massage parlours, other exciting activities soon supplemented the singing and backrubs. Fangbei gained fame as Shijiazhuang's Red Light District. As in Jianling, the peasants built additional floors on their homes.

In 2002 the village committee led by party secretary Ren took a dramatic decision: Fangbei committed suicide. Village enterprise Fangbei Property was to destroy existing buildings and replace them by more urban construction. The village hoped to keep external property developers at bay with this 'tactic of cultivated Earth.' There was far less resistance to the plans than in Jianling. The villagers had known their village business for years, and knew that as shareholders they would benefit from the proceeds. Property development is one of the most commercial businesses in the world, and communism is the least commercial economic system. Fangbei managed to mix them into an optimal blend. Fangbei 2.0 consists of a number of light grey tower blocks about a hundred metres high grouped round a tiled leftover space – the town square, with a car park below it.

Yesterday all the families in the village, depending on the number of family members, received one or more apartments in new blocks of flats, distributed through a raffle. One man is sulking. He did not make it to the draw in time, and to his disappointment, has won a penthouse flat. Being a former peasant he prefers to stand «jiao ta shi di» with both feet on the ground



Valuing pragmatism above all, the villagers abandoned any attempt at design: the buildings lack individual detail of any kind. The project has succeeded in the pursuit of optimisation, but to a price. From a distance the extreme makeover has created an impressive skyline, but facial reconstruction has produced an emotionless expression close up. Fangbei 2.0 has no dark alleys or prostitutes anymore, or small rooms where migrant workers rent bunk beds. It also has no restaurants, shops, or any pleasant public space. The collective character of the transition appears from the slogan on a red banner hanging from the building: 'Work shoulder to shoulder for a better living environment for our village.'

The day after the delivery of the flats, about a hundred villagers stand in the middle of the empty square. Red snippets of paper on the ground bear silent witness to the opening fireworks. There is a mood of gentle excitement. Yesterday all the families in the village, depending on the number of family members, received one or more apartments in the new blocks of flats, distributed through a raffle. One man is sulking. He did not make it to the draw in time, and to his disappointment has won a penthouse flat. Being a former peasant he prefers to stand jiao ta shi di, with both feet on the ground.

In the middle of the square a woman has set up a Formica kitchen. Customers pick colours from a binder with samples. Anything goes, apart from white. 'In a dusty city like Shijiazhuang that will turn grey in a couple of weeks.' Dozens of street traders sell electric blankets, tiles, curtain rails and anything else a new homeowner could possibly need. Their presence betrays the fact that the informal economy in the village has not yet been completely rooted out. Most activity takes place near the entrances of the residential towers. Men and women with furrowed faces, dressed in cheap jackets and woollen vests covered in embroidered flowers linger around a wooden placard with handwritten adverts. The former farmers have started their new careers as landlords of modern apartments.

On the street side the Fangbei buildings contain a line of shops, where large furniture companies sell Moooi Design and Artemide rip-offs. For the moment they target customers from outside the village. But how long will it take before the first farmer drags a polyester horse by Marcel Wanders into his living room?

At the end of 2009 a farmer lays hundreds of sheaves of corn out to dry on a square between white tiled residential blocks six storeys high. It is his last harvest.

Trails of the recent rural past are present everywhere in Shijiazhuang. Modern business districts lie next to hand-tilled farmland. Peasants hold markets under raised motorways. Walking through a new housing estate, you can all at once encounter a shepherd and his flock. It will not take long before these rural elements disappear from the streets altogether, as will all 'villages in the city.' Sun's self-built multifunctional building will be replaced by a Wanda living/shopping complex, and the peasant village of Fangbei has transformed itself into a high rise district barely distinguishable from the rest of the city.

All that remains are the local village dialects, rural dress and traditions. The peasants still bury their dead with processions and lots of fireworks. The rural communities form islands of local culture in an increasingly amorphous sea. They maintain the memories of the peasant past, as long as it lasts.

It is April 2010, and Sun Huanzhong smokes a cigarette in a comfy chair on the sixth floor of a block of flats. He has just heard that his house in Ji-anling was demolished a few months ago. Sun has not returned to his old village. It is too painful. He and his wife do not enjoy living in the modern compound much. 'We don't know anybody here. It's a bit lonely'. There is one redeeming feature of living with their son: they see their two grandsons every day. Ultimately they will get accustomed to their new lifestyle, Sun thinks. 'But there is so little to do here. I miss my fields.' He picks up the remote control and zaps to CCTV10, the scientific channel of Chinese public television. In five minutes, there is a documentary on about dinosaurs.

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In 2009, Hulshof and Roggeveen founded the Go West Project, a multidisciplinary research studio focusing on emerging megacities. The body of work produced by Go West Project over the past years is extensive and varied: lectures, blogs, (photo) essays, installations, performances, events, architectural designs, urban plans, books and policy proposals. The work has been widely published in both China and Europe and won various awards.

In 2011, Go West launched the book *How the City Moved to Mr Sun – China's New Megacities*, which was well received by the international press. The Dutch edition of the book was launched in spring 2012, the Chinese edition is due spring 2014. Go West works in an international network of writers, designers, architects, researchers and journalists. Currently, Go West is preparing its second book on Chinese involvement in African cities.

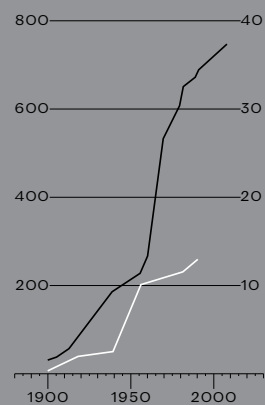
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37.22 MLN PEOPLE. 25640 HA



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- Administrative City Border
- - - City Center Area
- - - Territory marked on tourist city maps
- Urbanized Area of the City

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Diversifying the Metropolis

Yasushi Aoyama

Mock Decentralization By Using Multiple City Centers

In Tokyo, the conventional wisdom was that cities should develop radially around a single center, with compartmentalization of functions -- that is, offices in the center, commerce and services surrounding the center, and residential neighbourhoods around the periphery. But the city has in fact been spreading outwards since the Edo period, and its sprawl has reached a saturation point; a single center could no longer support the rest of the city. The conclusion was that it was necessary to decentralize Tokyo's urban functions. The result to paraphrase a proposal in 1982 was to correct the centralized, single-nucleus urban structure and use a multi-center urban design approach. A rising chorus of criticism issued from Japan's provincial cities regarding the excessive concentration of urban functions within Tokyo. Superficially, multi-center urban design appeared to hold out the promise of decentralization. In fact, it was simultaneously a means of expanding Tokyo's central district and a way of avoiding excessive concentration in the city center.

"Multiple-center urban design" became a vision for shifting from the conventional urban structure in which a city revolves around a single core, to a new configuration built around a number of subcenters. Specifically, the plan involved distributing the city's business, commerce, and industry - on a priority basis - among a total of seven subcenters: the three pre-existing subcenters, Ikebukuro, Shinjuku, and Shibuya; three new subcenters, Ueno-Asakusa, Kinshichô-Kameido, and Ôsaki; and the waterfront subcenter. To some degree or another, each of these subcenters was either a transportation node or near to one, in an area where it would be reasonable to expect a further concentration of business and commerce. In addition, five satellite cities were designated in the Tama area in the hills to the southwest of central Tokyo: Tachikawa, Hachijôji, Machida, Ôme, and Tama New Town; envisioned as magnets for concentrated commercial development, they were though not viewed on the same scale as the Tokyo subcenters.

Tokyo officially embraced the multi-center approach as a core principle of urban development in the Second Long-Term Plan for the Tokyo Metropolis, adopted in November 1986. The multi-center concept had already been incorporated as a central feature of the first long-term plan, adopted

in November 1982, but it was not until the second plan that the waterfront subcenter and such satellite cities as Ôme and Tama New Town were officially added, and full-scale implementation of the multi-center concept was launched. This Second Long-Term Plan for Tokyo Metropolis in 1986 conferred special status on the waterfront area with Tokyo Teleport at its core. Multiple urban functions were to be adapted to the trends of internationalization and computerization, information-related activities, international exchange, housing, culture, and recreation. From the outset, the plan's critics argued that the plan would not disperse, but rather create one huge core. They pointed out that the city center and the Shinjuku district were not really distinguishable from one another, since they already met each other along Shinjuku-Dôri avenue, and the city center had long abutted the Shibuya district along Aoyama-Dôri. Administrators countered that the Shinjuku and Shibuya neighbourhoods were not primarily business and commercial districts, for as soon as one turned off Shinjuku-Dôri or Aoyama-Dôri, one found oneself on residential streets with low buildings. Under the plan, these areas in fact turned into "multifunctional districts" with medium-height multi-storey buildings housing a mix of offices, stores and downtown housing.

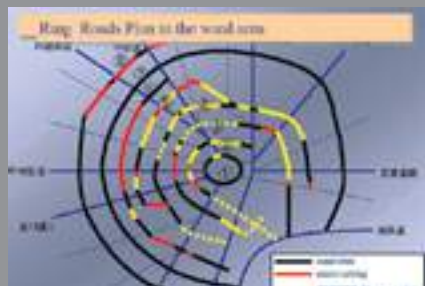
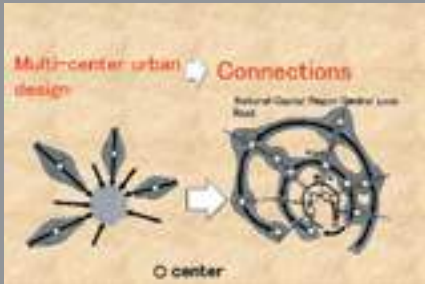
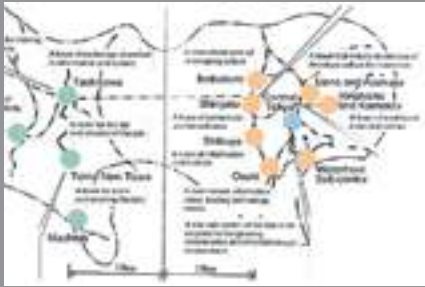
Two Monuments of the Multi-Center Era

As the multi-center idea developed, demand began to grow for a central district that offered multiple programs, including downtown housing, the means of exchanging information, social gatherings, culture and entertainment. As a result, most of the area defined by the circular Yamanote Line of Tokyo's commuter train system came to serve as a vast city center with more diversified functions than the traditional city center. The concept of multi-center urban design was useful in approaching urban planning from the perspective of the Kantô Plain as a whole -- in other words the development of a capital-region megalopolis -- instead of remaining confined by the administrative boundaries of Tokyo Metropolis, with its oddly long and narrow east-west layout. However when considering Tokyo's urban design, it makes sense to focus on the entire area within which daily activity takes place, whether from the standpoint of urban functions or that of people's everyday lives. In Tokyo, this is the area circumscribed by the National Capital Region Central Loop Road, a beltway roughly 100km in diameter, and the Tokyo Bay Aqua-Line. The National Capital Region Central Loop Road connects the surrounding cities (from east to west) of Narita, Tsukuba, Kuki-Shiraoka, Ôme, Yokota, Hachiôji, Sagami-hara, and Ebina. One of the keywords of the 1990s was "Route 16 culture". National Route 16, another loop road circling Tokyo, is flanked by a wide variety of commercial establishments, including clothing stores, restaurants, bookstores, music stores, and pachinko parlors, and every other type of entertainment establishment. This makes it a prime shopping and leisure destination for

young people in cars. Route 16 disseminates Tokyo's urban culture to people living on the outskirts of the city, so that they can fill all their needs without needing to take the train into central Tokyo. Put another way: ordinary people started to rebel against urban centralization. The multi-center urban design policy played its part and was then discarded, leaving behind two major monuments to that era of urban planning: a new Tokyo Metropolitan Government Building in Shinjuku, to which the Tokyo government offices moved in 1991, and the waterfront subcenter development.

A City Where One Can Go Car-less

The convenience of Tokyo's commuter train system is something everyone agrees on. Tokyo's rail network is so extensive that most people can manage quite easily without a car of their own. The total number of train stations in Tokyo's 23 wards - Japan Railways, private lines, and subways combined - has reached more than 520. This puts it far ahead of New York, London, or Paris, each of which has roughly 400. The large number of stations in Tokyo points to a rail network so extensive that one can almost always find a station within walking distance. In the area surrounding the city center, more than 90% of neighbourhoods are within a 10-minute walk of a rail station. Another important characteristic of the Tokyo area's rail network is the interline through-service provided by same-track linkages between Tokyo subway lines and private commuter lines that extend out into the suburbs, enabling many riders to commute without transferring. This sort of interline through-service is now taken for granted around Tokyo, and it has shortened time distances substantially. To take an extreme case, it is possible to ride from Chiba New Town all the way through to Tokyo's Haneda Airport using continuous rail lines [operated by five different entities]: the Hokusô-Kôdan Line (operated by Hokusô Development Railway and the now-defunct Urban Development Corporation); the Keisei Line (Keisei Electric Railway), the Toei Asakusa Line (Tokyo Metropolitan Bureau of Transportation), and the Keikyû Line (Keihin Electric Express Railway). Through-service from the Hokusô Line to Haneda Airport is available on a daily basis. Tokyo's interline through-service network did not spring up overnight. The first connection occurred with the extension of the Toei Asakusa Line between Asakusabashi and Oshiage, which opened for service in 1960. Before this could be accomplished, the Tokyo Metropolitan Bureau of Transportation and Keisei worked long and hard to coordinate their track construction plans and work out numerous details. Of the rail extensions to date, private lines account for 330 km and subway lines for 240 km, compared with the 300 km operated by JR, testifying to the important role through service between subway and private lines has played in enhancing the convenience of urban rail transportation around Tokyo. Yet despite the unparalleled convenience and sophistication of Tokyo's rail network, the crowding remains serious. The next phase is likely to involve carefully prioritized construction of track to connect existing lines in such a way as to enhance convenience dramatically. Another priority should be more lines circling the city. This is needed to respond to a shift in transportation patterns from commutation into Tokyo to interurban movement around Tokyo, as indicated by the increased crowding on such circumferential routes as the Musashino and Nambu lines. In sum, the key characteristics of Tokyo's rail network are the large number of stations, the existence of two complete loop lines, and interline through-service between subways and private rail lines.



Tokyo's Unique Post-Earthquake Ring Road Plan

When planning for automobile traffic, the most rational approach is to add several restricted-access ring roads to a city's grid-pattern street plan, constructing them in such a way that they pass under or over the other streets. Tokyo has such a plan. Unfortunately, it has not implemented it. Tokyo's plan calls for a total of eight ring roads, something with no parallel anywhere else in the world. The plan was adopted in 1927 as part of the recovery and reconstruction plan drawn up in the wake of the Great Kantô Earthquake of 1923. Today, 80 years later, only two of these roads -- Ring Road 7 and Ring Road 8 -- have been completed. Tokyo needs to accelerate construction of the remaining loop roads, especially the two that will run directly through the revitalized city center: Ring Road 3 (linking Gaien-Higashi-Dôri, Kototoi-Dôri and Mitsume-Dôri), and Ring Road 4 (linking Gaien-Nishi-Dôri, Shinobazu-Dôri, Meiji-Dôri and Maruhachi-Dôri). When complete, these roads, together with the city's two complete loop lines, will make Tokyo one of the easiest cities in the world to get around. According to the results of the Person Trip Survey (comparing 1988 and 1998 data), conducted jointly by local governments in the Tokyo area, the basic direction of traffic in the metropolitan area is already shifting from repeated back-and-forth radial movement between the city center and the suburbs to a more complex movement among communities. As the figure indicates, the pattern of traffic growth (rate of growth being indicated by a line's thickness) has become much more complex and diversified. This reflects a shift in the main functions of business offices, from large-scale document processing to knowledge production and negotiation, reflecting Japan's shift from an industrial to an information society.

Ring roads can play an important role by relieving traffic not only on local roads inside the city but on expressway systems as well. After World War II, London and Paris adopted plans for circumferential highways circling the cities' outer edges, and today their projects are all but complete. Only Tokyo has failed to implement its plan. The city needs to move forward quickly and complete a circumferential expressway system by finishing construction on the Metropolitan Inter-City Expressway (Ken-ô-dô), the Tokyo Outer Ring Road (Gaikan), and the Central Circular Route. Of the above, the Shuto Expressway Central Circular Route is nearest to completion. Construction on the Shinjuku Route, which runs beneath Yamanote-Dôri, is progressing, and the segment between Ikebukuro and Shinjuku was opened to traffic in December 2007. Construction on the stretch between Shinjuku and Shibuya (Ôhashi Junction) was also completed in 2010. When the final section, the Shinagawa Route, is open to traffic, it will largely eliminate congestion on the Shuto Expressway system.

Ensuring Coherence in Big City Administration

As a people, the Japanese may have a reputation for adopting hard and fast rules or procedures and adhering to them faithfully. But when it comes to managing Tokyo, one of the world's great cities, they have shown remarkable flexibility and adaptability. Tokyo Metropolis (Tôkyô-to) is a "metropolitan prefecture" consisting of 23 special wards and 39 cities, towns and

villages. The 23 special wards, while embracing a total of 8.5 million residents and 60,00 hectares, differ from municipalities in respect to their administrative responsibilities. As stipulated in the Local Autonomy Law, in the special wards, administrative functions that require integrated management “to ensure coherence and unity in the administration of a large, densely populated urban area” are the responsibility of the Tokyo Metropolitan Government (TMG), not the ward themselves. In concrete terms, this means that the special wards cannot independently sustain their own water supply, sewage system, fire-fighting apparatus, and so forth. Instead, the TMG provides these services for the 23 wards, treating them as a single entity. To be sure, responsibility for urban planning, authorization of construction, and similar functions has been handed over bit by bit to individual wards, but the TMG still retains authority over large-scale projects. Similarly, while some waste management responsibilities have been transferred to the wards, final waste disposal is still carried out by the TMG. The TMG handles the vast bulk of these and other services typically provided by big city governments, including they subway and bus system, public hospitals, public universities, public housing, and establishment of cemeteries and crematories, although there are instances in which the wards take over partial responsibility.

Tokyo’s 23 wards were not self-governing entities originally, but mere subdivisions within the city of Tokyo (Tôkyô-shi). Before World War II, the city of Tokyo was part of greater metropolitan Tokyo, referred to as Tôkyô-fu, along with the surrounding counties (gun). In 1943, the Japanese government, perceiving a need to streamline administration in conjunction with the war effort, merged Tôkyô-shi and Tôkyô-fu to create Tôkyô-to (Tokyo Metropolis). Since then, under a series of policy changes, the 23 wards have evolved from mere city subdivisions into increasingly autonomous entities. Public election of ward mayors was instituted in 1975. Before that, ward personnel worked for the TMG. Throughout this period the wards have campaigned vigorously for greater autonomy, and the TMG has resisted, stressing the importance of unity and cohesion in administration of a large urban area. The dynamics of this conflict has led to continual revisions of the system, resulting in a complex series of changes. Do the 23 wards have the autonomy of self-governing local entities, or do they not? There is no simple answer.

On the one hand, the wards are able to select their own mayors and ward assembly members. In most respects, however, their powers are quite limited compared to those of ordinary Japanese municipalities in Japan. This amorphous and flexible system makes Tokyo’s management both unique and quite practical. In Tokyo urban policy is anything but clear-cut, and urban design has a chaotic look to it. There is no consistent philosophy or principle tying together Tokyo’s overall design or cityscape. Nonetheless, conflicts between competing interests are somehow resolved, the city runs smoothly, and its chaotic look gives it a charm all its own.

Diversifying the Metropolis

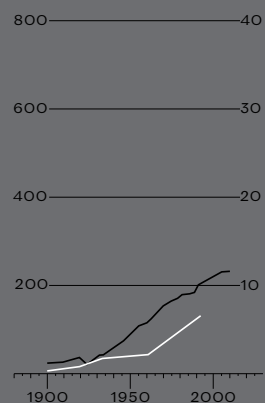
In order to correct the heavy concentration of business in downtown Tokyo and to create an abundant lifestyle in Tokyo with balanced occupation and housing opportunities, the creation of a diversified metropolitan area should be promoted by encouraging the dispersement of business to sub-centers. But in the Tokyo center core area, the New Marunouchi Building was completed in 2002. In 2003 Roppongi Hills opened, and that year the number of passengers travelling from the suburbs into central Tokyo on privately operated commuter lines rose for the first time in about a decade. The surge came not from commuters but from people visiting the exciting new buildings in the heart of the city. That was more than ten years ago. Since then, office buildings have continued to spring up in central Tokyo and the adjoining areas, most of which go far beyond traditional office-building functions with the inclusion of hotels, restaurants, stores, personal services, educational facilities, and more. In the advanced information age, the core function of the office building has evolved from mass processing of paperwork and clerical tasks to the creation and exchange of knowledge. Today machines take care of the routine clerical work, leaving human beings to devote themselves to activities involving higher-order thinking. Today, this is the way wealth is generated.

Cultures and civilizations flourish and advance through interchange. People are stimulated and inspired to further intellectual growth through contact with experts in other disciplines. People keep moving as they strive to improve their own knowledge and understanding. In the twenty-first century, city dwellers value the quality of housing and the environment and yearn for surroundings rich in ambient water and greenery. Tokyo needs to build an urban planning system that reflects these new values. Tokyo can take advantage of hosting the Olympics and Paralympics by introducing social changes. Instead of being an industry-focused metropolis, Tokyo should aim to be a center for the arts, entertainment and sports. Tokyo should show the world a new model of a matured society, in which the quality of life is enhanced. The capital is already advanced in facilities for elderly citizens and disabled people compared with other cities, but Tokyo still has room to improve as a barrier-free society, noting that by 2020, the status of the Paralympics will be much higher and thus greater efforts are needed to

promote barrier-free movement. Hosting the Olympics is also expected to enhance the nation's passion for sports, experts have said, noting funds will be raised for new facilities. The thrust of infrastructure development in Tokyo has shifted from the 1960s emphasis on efficiency to cope with urban sprawl, to a new focus on the amenities befitting a mature society. In the second decade of the twenty-first century, the emphasis in urban infrastructure continues to shift from the construction of roads and railways - the imperative of the 1960s - to improvements in housing, environmental quality, and ambient water and greenery, aimed at enhancing the quality of urban life.

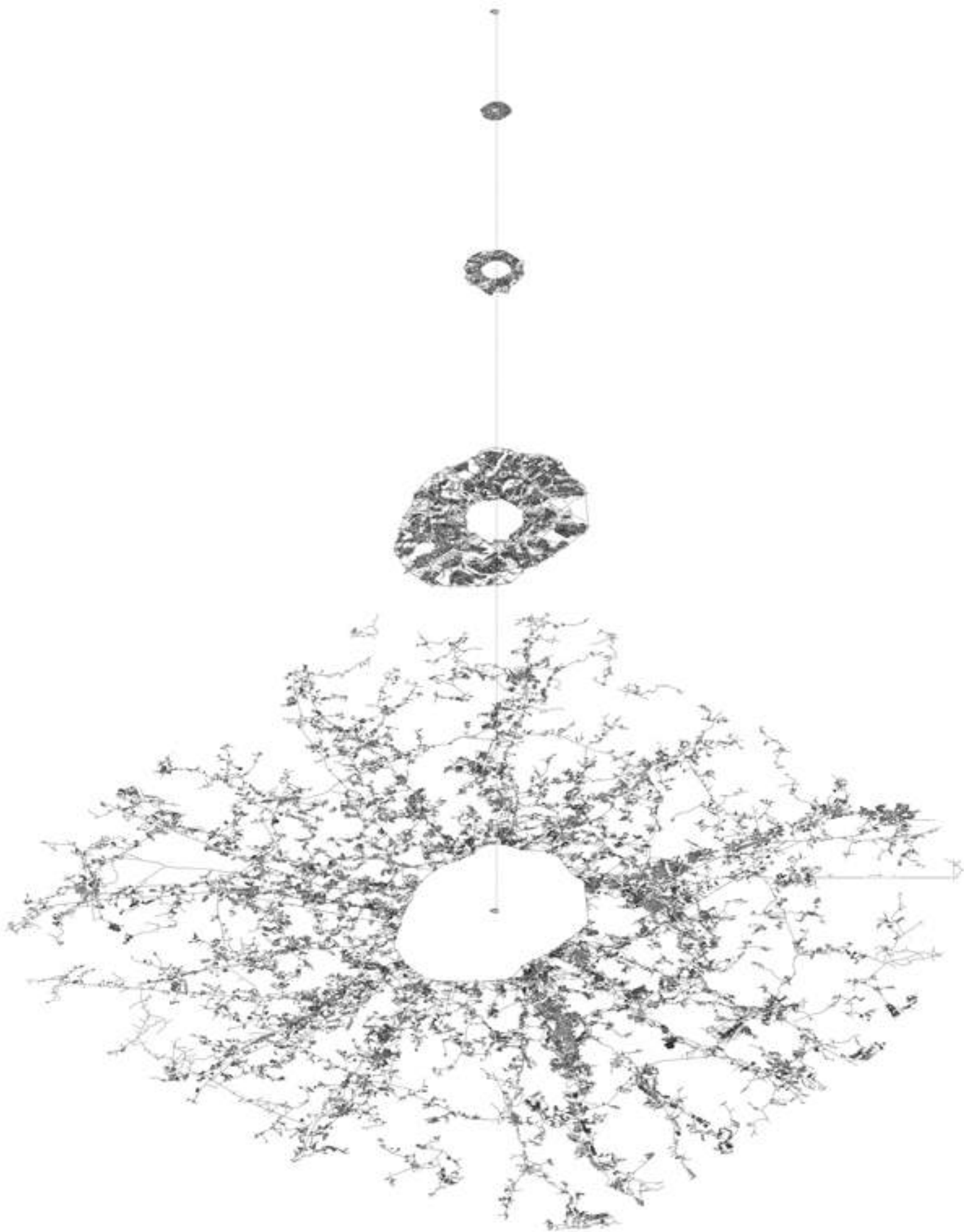
Moscow

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Moscow — Another Endless City?

Tatyana Nefedova

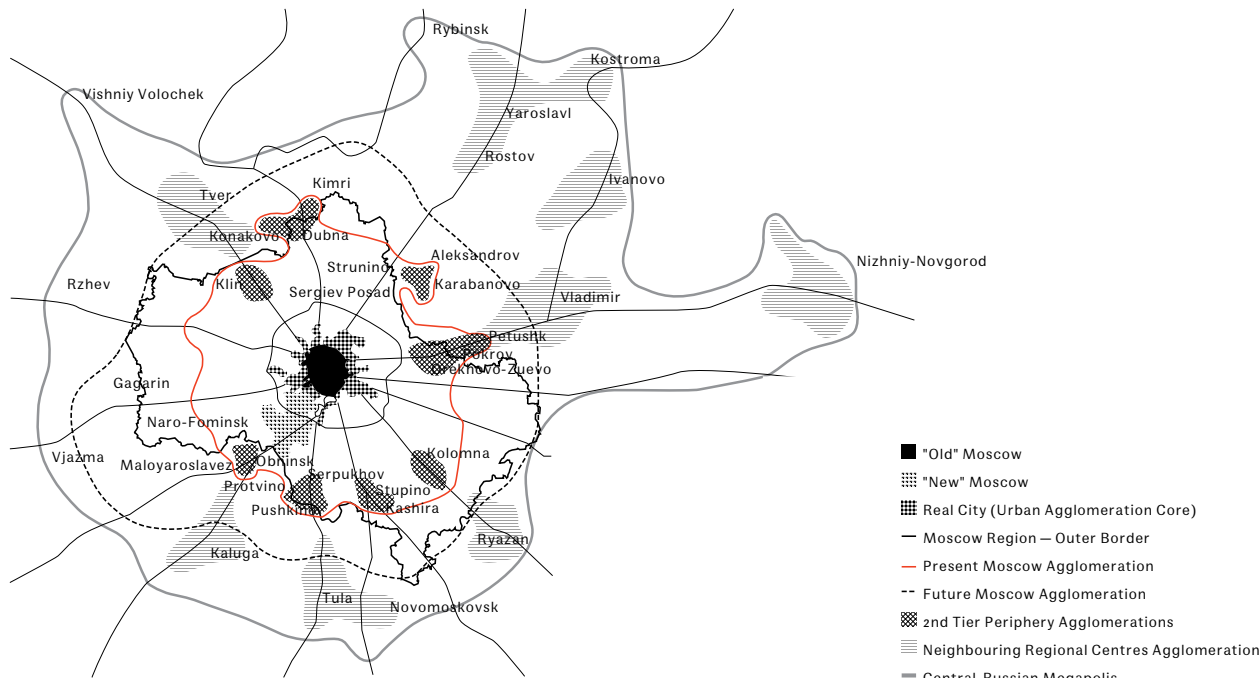
Russia's population grew from 67.3 million in 1897 to 147.4 million in 1989 and then began to wane. The country reached the level of developed countries in terms of birth rate, but its mortality rate was much higher. According to demographic projections and the Federal State Statistics Service, despite the government's efforts to increase the birth rate, the population will decline further. In addition, during the 20th century, the character of population has changed. Whereas the 1897 census showed that only 12% of the population lived in cities, the current figure is 73%. Russia's common practice has long been to develop its territory, primarily due to the inexhaustible nature of the country's resources. In the second half of the 20th century the euphoria of petrodollars was added to the equation, allowing costly construction to be planned in the underdeveloped areas. However, that which was considered rural Russia in the early 20th century, through the expansion of developed territories, has gradually contracted into urban clusters. The growth of cities and the concentration of the population and its activities in separate cores has led to the formation of centers and peripheries.

The concept of the Russian periphery can be considered on varying scales:

- A Small – the outer periphery, i.e. regions and cities far from the country's capital
- B Medium – the inner periphery (regions and small towns which are distant from regional centres and located between zones of direct influence of large cities)
- C Large – the local periphery (rural areas which are distant from cities; urban areas which are distant from the administrative centre of the city).

A common trait of any periphery is its physical distance from the center, whether the capital of the state or region, a large city, urban or rural center. But this is not the most important factor. The periphery in this case arises due to the polarisation of Russian territories, in contrast to the direction and extent of the socio-economic development of its constituent parts. This increasing polarisation of cities and rural areas, including the "centre-periphery" axis, has been particularly evident in recent times. Calculations show that the smaller the size of the city, the greater is the likelihood of it experiencing a socio-economic depression. In 2000–2010, 60% to 70% of all

FIG. 1 Primary urban structures in the center of Russia



Authors: A. G. Makhrova, T. G. Nefedova, A. I. Treivish. 2012

small cities in Russia could be classified as economically disadvantaged, or experiencing a depression, typically cities distant from regional centres. In general, "oil & gas" cities are an exception, as are cities with foreign investment and energy companies. At the other end of the scale are major centres, in particular Moscow, characterised by much better job opportunities, higher income, additional unofficial earnings, a creative environment, etc. In rural areas, the differences between the centre and the periphery are more clearly pronounced. This general trend of increasing spatial contrasts is most evident in the Moscow region. For 20 years, Moscow's share of people in employment increased from 6.9% to 9.5% while the share of retail trade increased from 11.5% to 17.5 %; even the share of industrial production increased from 6.7% to 10.3%, despite the fact that it is one of Russia's main post-industrial cities.

Usually Moscow and the Moscow region are considered within their official boundaries. However, In Central Russia the borders themselves are not the most important aspect to consider, but rather the gradients between Moscow and its vast periphery (Fig. 1). The capital itself is clearly divided into a business centre and large zones of residential districts. Although the density of the permanent population does not vary greatly between the districts, the contrast between the day and night populations is significantly higher. Moscow is the country's main hub of financial and commodity flows, the main window to the world and a global city. Moscow and the Moscow region are beyond comparison - in 2009-2011 its gross domestic product, income and consumption, are ahead of St. Petersburg and the Leningrad region by a factor of 4-6; in terms of Rouble bank deposits, by a factor of 7, and in terms of consolidated budgetary income, by a factor of 13.5.

The closest region to the capital beyond the Moscow Automobile Ring Road (MKAD) actually merges with the residential suburbs on the outskirts of "old" Moscow. This area of dense construction is the so-called "real" city. Administrative boundaries here are arbitrary: they divide parts of a single urbanised zone. At the same time, due to the lack of highway flow, the MKAD has long since become a barrier, disrupting the functioning of the city and causing a road traffic collapse. The concentration of jobs with higher wages in the centre (Fig. 2) turns the Moscow agglomeration into an attractive area for migrant workers, with not only daily shift patterns, but also weekly, monthly and longer shift patterns. This zone is expanding, as a result of the growth in Muscovites' country homes (dachas), almost merging with the agglomerations of the capitals of neighbouring regions. And the long period of "drawing out" the populations creates a kind of socio-demographic "desert" between these two zones, a typical example of an inner periphery.

On the whole, the Central Russian megacity (Fig. 1) includes 168 cities and an urban population of 24 million people – a quarter of Russia's total population. In order to understand the extent of the centralisation of resettlement, it is important to note that 53% of the total urban population of regions in Central Russia is concentrated in the "real" city, i.e. in Moscow and the cities which, for all intents and purposes, have now merged with it. The agglomeration of the capitals of regions adjoining the Moscow Region accounts for 22% of the population of central Russia.

Endless Expansion

Outside the megacity, there are 86 small and medium-sized cities in central Russia, but their share of the region's urban population is only 2%. The possible development of the areas of the megacity closest to Moscow is reflected well in Fig. 3, which shows the huge scale of housing construction in the "real city" beyond the MKAD. Although compared to the three previous expansions of Moscow's territory, the most recent, to the southwest, appears to be something new. The past year has shown that Moscow's expansion and dispersals is unstoppable, comparable to an oil slick. Despite declarations in relation to the intended complex use of the area and construction of low-rise buildings, within a radius of 15–20 km of Moscow, the construction of primarily high-rise housing also appears inevitable.

Spilling into areas outside Moscow, residential suburbs exemplify the problems of 1970–80s construction. In the prevailing economy, housing areas become diluted with corporate buildings whilst differentiation of areas in terms of quality of life and infrastructure remains. Moscow government's plan to increase the number of Muscovites working close to home to 40% has not been realized. The increase in the number of shopping centres and offices in old residential suburbs creates only the appearance of a resolution to the problems that are becoming increasingly acute in areas that are further from the city centre. Although the MKAD has become the capital's main shopping street, it does not function well for the local population. In sum, all of the above are turning the immediate suburbs and outskirts of "old" Moscow into problem areas, where pockets of unrest periodically emerge.

FIG.2 Salary in the central towns of Russia. 2010, thousands of rubles. Authors: A. G. Makhrova, T. G. Nefedova, 2013

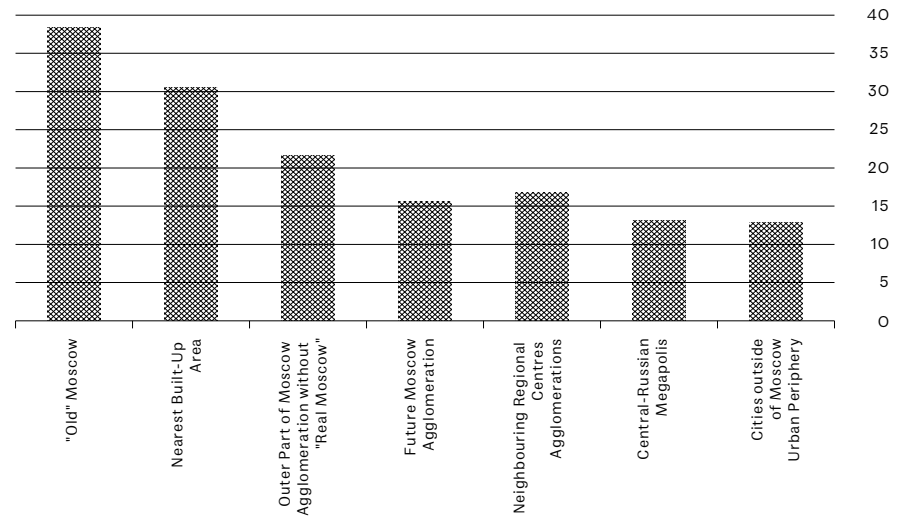
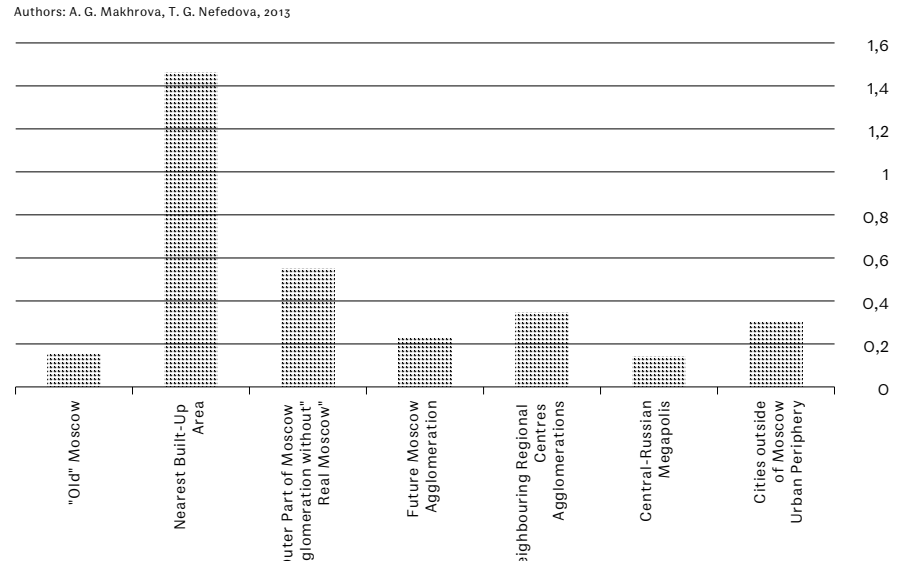


FIG.3 Housing construction per capita in the central towns of Russia. 2010, meters. Authors: A. G. Makhrova, T. G. Nefedova, 2013



The spread and increase in the density of the capital's ring of residential suburbs, accompanied by the desertion of other regions of Russia, continues. A consequence of Russian centralisation and domination of Moscow and its agglomeration, this is aggravated further as a result of 'capital rental rates,' the unfinished urbanisation of large cities, and the lack of a coherent regional policy. The overwhelming majority of high-rise housing being built in the Moscow region today is purchased or rented by non-natives, which strengthens the centre-periphery contrast on all levels - from differences inside the "real" city itself, to the striking inconsistencies between the capital on the one hand, and the inner and outer periphery on the other.

Terra Incognita

M O S C O W

Vladimir Kaganskiy

Interview: Glafira Parinos

VLADIMIR KAGANSKY

Vladimir Kagansky has a PhD in Geographic Science and is a Senior Researcher at the Institute of Geography of the Russian Academy of Science. He is also a theorist of the Russian cultural landscape. We asked him about the role and perspectives of the area between the Third Transport Ring and the Moscow Ring Road, the so-called «bublik» (rus. «doughnut»). You can read more about the role of MRR in the text by T.G. Nefedova.

— **What do you think is the role of the "doughnut" area between the Third Transport Ring and the Moscow Ring Road in terms of the functioning of the Moscow agglomeration?**

I see this incredibly important area primarily from the theoretically geographical point of view on the basis of the theoretically based vision. This area is unknown, unexplored, strange. It's a grey area without a proper name. However it's a rather big part of Moscow, a prominent, and, what is particularly important, a middle part of Moscow agglomeration, almost it's spatial basis. B.B. Rodoman introduced a new concept of spacial fundamental rule calling it "location obliges". Location also determines the state of the landscape and specific functions of the particular place. I have added to this a concept of "profile determination." Spatial location and the profile of the place (especially in post-Soviet times) are the factors that mainly determine the state and the functioning of the area.

The so-called "doughnut" is situated between the Moscow city centre (Moscow, Moscow agglomeration, central Russia, Russian Federation) and the Moscow Ring Road — the former city border, and now the internal border and the axis of the whole agglomeration. It is the internal outskirts of Moscow. The concept of internal outskirts combines the features of the general outskirts (such as almost colonial dependence, economic and cultural inferiority, underdevelopment, fragmentariness, looking up to the centre) with its location within the developed area, sometimes in place of the former cultural areas that are now degrading). The internal outskirts are created by the external active areas; a new concept for the urban environment. Unfortunately, the bad state of the landscape and local community is quite commonplace.

The doughnut area provides the city with land and also with goods and services. But although this area is essential for the city, it doesn't add anything to its image or atmosphere. The outskirts are a combination of separate areas that can't be called self-sufficient as they completely rely on the centre. The issues are being solved within its boundaries but those issues are external and not related to its internal specifics. The doughnut area as the internal outskirts is in fact the internal Moscow colony!

— **Could you call the area between the Third Transport Ring and the Moscow Ring Road some sort of a "transit area" between the area outside MRR and the area inside Garden Ring Road?**

It only could be called a "transit area" in the sense of it being the field for the highways to pass through, cutting it into fragments. And being the transit area it is not a "contact area" as it doesn't play a mediation role. We can see another paradox — although "transit" for the city agglomeration, the

highways actually block the doughnut area as they are hard to cross. So its territory once again is used to solve the external issues. However every part of the cultural - especially urban - landscape is supposed to have the connecting role. But regardless its location, the doughnut area lacks this role.

— **Do you think there might be potential opportunities for the formation and development of the new centres within this area that would become the new points of growth, or will all growth take place only outside the MRR?**

There might be potentially big opportunities but their chances are uncertain as they depend on the general situation in the country. The Moscow agglomeration is a very important part of the country, therefore its middle part does react to this general situation. There are quite noticeable points of growth inside the doughnut area. For instance, the so-called "golden crescent" in the south-west where some of the popular colleges and new theatres are situated. The second "axis" is the area around Sokol and Dinamo and so on. The MRR part of the city is from north-west to the southwest. We could list the following main resources of the doughnut area: the potential of its middle location, its potential structure and statefulness due to some of its parts, its variety in terms of location - including the parks and the empty spaces

— **The doughnut area is located within the city, but do you think it displays urban features?**

It does in the sense that the doughnut area isn't the countryside. But otherwise, it doesn't have the proper urban features if by that we mean the conglomeration of population, the variety of lifestyle and central status that a city normally has. In general, the doughnut area doesn't hold any centralized functions for the City - apart from those movements towards Kutuzovsky prospekt, Sokol and the southwest. In those areas we might identify potential growth in the nearest future.

— **How much influence did the centre have on the shaping of the area as it appears to be now?**

The centre has created this "colony" for solving its issues such as building the industrial parks and rehousing the workers. This seems to be the fate of all outskirts. The Centre kept solving its external issues and the area didn't get developed - as it requires the external planning. The same situation can be noticed in west Siber that happens to be just fulfilling particular state interests. If this area had been developing on its own, it could have been quite different. The outskirts are not an area of development, but are more functional, existing to solve external issues dictated by the Centre.

— **Would you say that the Centre has a lot of influence on the doughnut area or could we say it is quite independent?**

Exactly. The area is independent in a certain unknown way. The doughnut area is the most unknown and misunderstood area of all Moscow agglomerations. Well, actually the Moscow agglomeration itself is understood even less, as well as the post-Soviet city in general.

— **Could one consider the doughnut area as one whole when working at its development program?**

Only partly! The doughnut area is a combination of several key areas. It is a snippety area and it can be considered as a whole only due to the same location. Studying it without any reference to the areas outside the MRR and TTR would only mean studying just one part. This area does have some consistency. The area should develop its "personality" first. However it does not seem possible taking into account the present government. It only considers those areas to be valuable and worth looking after, and investing in socially and culturally, that are useful for the people. We do not know which sub-areas there are inside the doughnut area. We wouldn't be able to understand the differentiation of its sub-areas or its location-landscape and conceptual structure without exploration, theoretical basis and also field-work. So far it is a blind spot, a terra incognita.

— **Do the areas outside the MRR have any influence on the doughnut area and how?**

They do. Firstly, it is a recreational resource - simple as that. Secondly, the MRR should now be considered not as just a highway but as a trade and logistical area with practical but centralized functions. The MRR area and its surroundings are some sort of "external centre" to the doughnut area. It is also an alternative to the "old centre" but not a fully valid one as it does not hold cultural, symbolical, service or leisure functions. There is no imagination or creativity invested and therefore no big concert halls or theatres. All the creative resources are channelized into the Internet, social networks and media. Initiative and activity are now concentrated online instead of offline, not in the landscape area but in the phase field.

SPACED: Interdisciplinarity and a Humanitarian Shift

Sergei Sitar

"Archaeology of the Periphery" is, in fact, the first large-scale interdisciplinary urban study of the post-Soviet era. For that reason it is particularly interesting in the sense of its format and methodological structure. Four key moments need to be elaborated at this stage. First of all, it is the conscious choice in favor of **equitable interdisciplinarity**, which can be considered a sign of historical change in the system of scientific definitions, forming in response to the city and its development. Secondly, the origin and relevancy of the SPACED method — the set containing six mono-disciplines on which the study was founded — Sociology, Politics, Architecture, Culture, Economics, Data. Third, it is the specifics of the format and working process for all of the areas, both rooting from the corresponding disciplines and from crossed disciplines mixed in during the course of discussion. And finally, synthetic and heuristic value, as well as fundamental constraints of the interdisciplinary approach, all of which became apparent during the process.

Illusion of Neutrality

In the course of the past few years, interdisciplinarity became the dominant trend in urban planning across the world. Now, it is somewhat hard to believe that in the beginning of the 1960s this sphere of knowledge was headed in the opposite direction. It seemed important to dissociate from all the other academic disciplines, to prove the monopoly right to a scientific definition and an interpretation of the subject called 'city.' "City under a scientific study" thus was thought as, and constructed as, an abstract, trans-historical and trans-geographical essence: not Calcutta, not Mexico – but something that combines all the world's cities. Other disciplines also tried to study this matter, but attempts were cut short, due mainly to the fact that these studies would take place "in a city," and not be "about a city."¹

Anticipated in such an essentialist strategy, scientific urban planning was narrowed to the combination of two concepts: demographical structure and space (ecological) localization. And even economic aspects – not to mention political and social ones – were considered only to the extent to which they could be rendered to as derivatives from the two "basics". In the 1960s civil activism aggressively entered the stage to oppose the existing modernistic practices of city planning and city development, and radically changed the situation. Jane Jacobs², the American journalist and researcher, played one of the leading roles in the rise of this movement. In the last few years her main theoretical works were accelerated and gained great success after publication in Russian. As segmentary opposition voices grew to become a mass movement, it became apparent that the base for political crisis was not imperfect planning solutions, but the means of subject conceptualization tied to professional urban planning. Trying to bring a scientific definition of the 'city' to the state of flat-out "objective" abstraction, urban

1 ABSTRACT CITY

The truth is though that city is not some concrete place, from the standpoint of exact science. It is not Cincinnati, nor Bangkok, nor New Delhi, nor Liverpool, Lima or Cebu. It is rather all of these cities viewed from a particular perspective. The city itself determines what exactly is important under that perspective – not something missing or present in this or that city."

[Urban Research Methods. Jack P. Gibbs ed. (Toronto – London – New York – Princeton: D. Van Nostrand Co. Inc., 1961) p. XIV-XV.] Cultural and sociological matters, issues like juvenile crime or religious commitments of citizens were moved beyond the framework of the study as not strictly connected to urban problems.

planners were, in fact, creating engineering and bio-political models which would mostly meet the interests of the state bureaucracy and large development corporations. This malady simultaneously and intensely affected urban planning both in Western countries of “general welfare” and Eastern countries of “developed socialism”. It turned out that any research judgment of specialists – in full accordance with phenomenological principles – is not neutral, but intentional; an assessment blurred by implicit yielding in favor of concrete procedures impacting the world (industrial development), conducted on a high level within the system of social production. But how is it possible to reach an unbiased understanding of the urban reality if – according to a phenomenological approach – working knowledge is inevitably a conductor and a tool of practical aspirations of these or those historical subjects – social groups, political classes, professional communities and so on? The development of an interdisciplinary approach based on the principle of epistemological pluralism appeared to answer this question. Since urban planning clearly favored technical and physiological models during the industrial-modernistic period, the most notable and typical trait of the new phase turned to be the twist towards humanitarian disciplines: sociology, history, cultural studies and anthropology were suddenly of great influence, policy criticisms became more frequent, and the position of institutional analysis strengthened. A new genre of city territories’ “artistic research” emerged and gained a foothold.

SPACED

The ESPAC methodology: Economics, Sociology, Politics, Art, Culture turned to be a prototype for the set of agenda disciplines. This methodology is an educative format elaborated in 2011 by the programming directors of Strelka Institute for Media, Architecture and Design- Anastassia Smornova and David Erixon within the framework of an academic program and recommended methodical base for student studies. SPACED Matrix included all the disciplinary components of ESPAC put in a different order. There was only one semantic distinction: the architecture course was marked with the symbol (A). The planning structure, its history and physical components of the urban milieu were to be studied within the bounds of this course – including “artistic” aspects of the urban environment and culture. Besides this, the ESPAC set was extended by Data section, marked by (D), designed to extend new research and offer practical understanding of things happening before our eyes; emerging in relation to the boosted IT penetration of urban space.

Although the region of Moscow’s industrial-modernistic outskirts was the main research object, the decision was taken to analyze this regional complex in the context of a much larger-scaled and variable set of phenomena – an entire spectrum of new peripheral and semi peripheral urban categories

2 JANE JACOBS

The most influential political work of Jacobs is her 1961 book “The Death and Life of Great American Cities”, published in Moscow in 2011 as “Novoe Izdatelstvo” by L. Motilev.

in urban development of the 20th Century. The general strategic tendency, which surfaced in the work of all six disciplines at the stage of initial draft of their internal objectives, strives to qualitatively upgrade the conceptual apparatus of the traditional urban planning hinged on such reductive matters as “population”, “working resources”, “places of application” and “material needs”. Significantly a more interactive, 'enclosed' and concerned way of perceiving citizens replaced this Fordist way of thinking. Now, people living in cities were seen as carriers of specific motivations, cultural archetypes, ideologies, conceptual frames, mental maps and daily behavior rituals. Within the framework of each of the six disciplines this humanitarian twist acted differently and, at the initial level of methodical differentiation, divided them into three groups – retrospective (physical footmarks of ideas and existing practices); introspective (analysis at present); and prospective (approaches foreseeing the future).

Approach

The first two disciplines – (A) and (C) (“Architecture” and “Culture”) – are the most “archeological” in the direct sense. They are more closely allied to traditional urban planning; they view a territory as a system of physical artifacts and usage scenarios. Despite this, an epistemology perspective is spreading; the discipline is aimed at not only reconstructing the functional sides of building, and infrastructural set-up of the micro-district belt, but also exploring the roots of the technocratic and socially-converting ideology embedded in this process. A laborious inventory of the micro-district belt’s existing elements (as kind of *objects trouvés*), evaluates their comparative value in the perception of both official and unofficial institutes, concerning also the heritage issue. The (C) discipline is based on principles articulated by Michel de Certeau and a range of post-traditional sociological movements; ethnomethodology – the sociology of everyday life. According to this principle, the usage of physical objects by human communities is a specific type of collective creativity, which helps to humanize these objects and gives them valuable characteristics, including the symbolic. With this logic on an urban scale, (C) also touches upon the mass upsurge of commercial urban services in the territory of “the first outskirts.” How uneven these spontaneous networks are, can help uncover 'naturally' developed focal areas, new alternative city-wide centers.

Unlike the first two disciplines, (S) and (D) sections (“Sociology” and “Data”) focus on those urban aspects, which were not or could not be included in traditional urban planning. They represent territory as a landscape of ensemble thinking, as offhand emotional moves and non-stop turbulent mobility. Using traditional sociological methods (S) sheds light on issues connected to such delicate socio-psychological factors and concepts as local identity, residency and social stratification. Materials in this section are of particular interest, as the migrant integration issue becomes more and more urgent for Moscow and other large cities. (D) section pays attention and practically instrumentalizes the urban infosphere analysis – beginning with mobile operators’ and social network data. New technical capabilities include not only extremely informative vivid mobility monitoring in different categories of commuting on the scale of the whole metropolis, but also technologies of statistical processing of meaningful messages, which internet users exchange in systems with public access. Carefully se-

The evolutionary and discursive path could in time bring us to the city, not as a panorama of chronicle contradictions, but the footprint of gradual growth of the citizen's self-awareness

lected methods of content analysis — also including analysis of frequency distribution and associativity of semantic units with toponyms — make it possible to stop this anxious “informational noise” and draw a meaningful and dynamic perceptual picture of the city-self. Finally, (E) and (P) sections (“Economics” and “Politics”) show the city as a landscape of institutionalized practices where the new types of political and economic subjectivity are generated; it proceeds from an assumption that Moscow’s “first outskirts” have the hidden potential which cannot be fulfilled due to structural disproportion in territorial usage and/or governing flaws. (E) section, which looks into the poor efficiency of transit to the market, together with residential property sector in the region of micro-district belt, also operates quite traditional methods of econometrics, graphical analysis and systematic modeling. This data eloquently outlines the “monotony” of Moscow new construction as not only aesthetic but economic; with alarming homeostatic and even autocatalytic features. The format of (P) section is a mental experiment which demonstrates fundamental dependence of a possible positive scenario (accepted as an initial hypothesis) from the combination of three factors: a) balanced territorial development of Moscow on an agglomerative scale, b) successful integration of civil society in the governing process as a “regime counteractant” and c) implementation of new progressive technologies by governors of the micro-district belt — including methods of overall reconstruction and residentialization of industrial mass housing which were tested in other countries.

Method Restrictions

All the disciplines included in the project brought specific means of round-up conceptualization and, subsequently, their own modeling distance. The main difference from the traditional standpoint is that no theoretical platform could hope to gain a favorable status within a general context. Specialized disciplinary scripting languages are still competing with each other — heated arguments between curators and contributors of different courses appear practically at every stage of project realization. As is justly noticed by critics of interdisciplinarity, studies of such kind rarely give birth to descriptive models and practical scenarios which could pretend to be “the only accurate” ones. But the fact that such studies make it possible to creatively reconceive and improve conceptual tools originating in separate disciplines, fully make up for this natural phenomenon. Every element of category system in the territory researched, influences one way or another the legislative and governing trajectories of decision-making. Continuous elaboration and upgrading of this system in an intensive interdisciplinary dialogue is opening the way to a balanced and successive exploration of multidirectional interests. Following the evolutionary and discursive path could in time bring us to the city, not as a panorama of chronicle contradictions, but the footprint of gradual growth of the citizen's self-awareness.

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AERORECORD
ARCHNADZOR

S P A C E D

ARCHITECTURE

The Mobilized Landscape
Gridlock, the Donut and Intelligent Solutions
Open space
Construction waves
Habitat
Brasilia. Residential Superblocks
Why they don't like walking in Toyliatti
Open Space Planning. Interview with Nina Krayniaya
City of Ideas: A History of Planning
Planning footprints
Surviving landscape
The New Ground: Superpark

The Mobilized Landscape

ARCHITECTURE

Sergei Sitar

The old human thought says that
the new way of thinking has come adrift
This is why the Bolsheviks
seem crazy to some people.

D. Kharms, 1930

Introduction: the paradox of technologically-accelerated growth

The Soviet era of Russian history is typically associated with total, over-centralized and overly deterministic planning. An examination of the construction of Moscow's 'first periphery', i.e. the area between the present-day Third Ring Road and the Moscow Ring Road (MKAD), reveals that its very peculiar morphology is the result of a process which escapes from the opposition between spontaneous growth and development adhering to a previously-formulated plan.

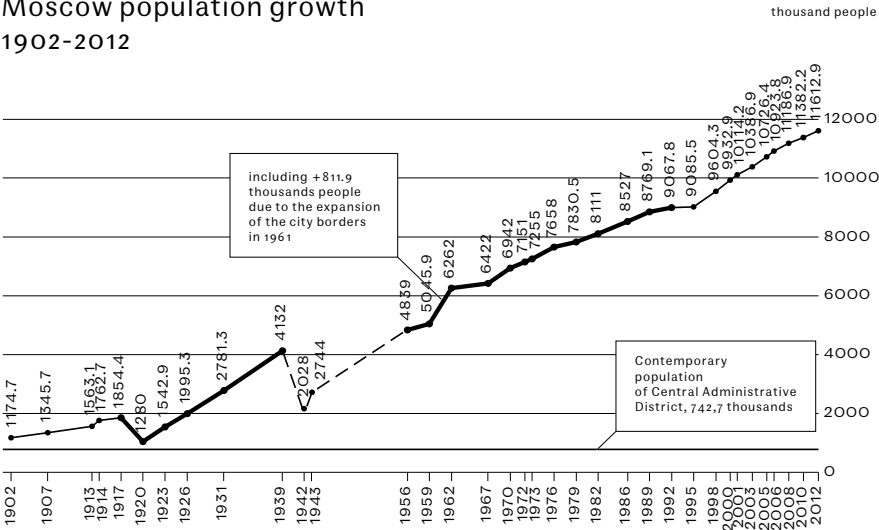
Beginning with the famous technical plan of 1957, the master plans of Moscow are becoming less proactive and more and more retroactive and 'hanging on' in character. In other words, they are being transformed from projects into documents designed to legalize, and, when possible, amend that which has already been completed. The general spatial characteristics of Moscow's 'first periphery' set a paradoxical, historically-unprecedented algorithm of development, the basis of which is, on the one hand, both rational, and poetic in its own way, but, on the other hand, happens to be completely detached from the tradition of urban planning with its focus on creating spatial hierarchies.

In contrast to the former 'sovereign' regime of urban development, in which political subjectivity was primarily associated with the rootedness of a particular geographical location, the new algorithm is a mode of mass urbanization or technologically-accelerated growth and reflects a greatly increased level of population mobility, an elimination of class barriers, and an irreversible dismantling of traditional 'telluric' forms of social identity, thus turning the system of abstract economic relations and a field of information and communications into one's 'primary place of residence'. This new algorithm is most closely related to scientific and technical thought, as well as with the paradigm of 'bio-politics' or 'bio-power', which has overtaken the minds of the new European administrative class since around the turn of the 18th-19th century¹. The adoption of this paradigm still raises an almost instinctive protest among professional architects, while engineers and administrators, perceiving the reality predominantly in this new 'bio-political' optic, have yet to completely grasp its historical essence and its fundamental culturally transformative role. Although in Moscow, in the rest of Russia, as well as in the major cities of former socialist bloc, the algorithm of accelerated growth is function and continues to be implemented with notable historic peculiarities, its origins and dissemination represent a global phenomenon which is not rigidly tied to any particular economic system or political regime. In order to more precisely characterize the universal ideological basis of this algorithm, it makes sense to try to take it apart 'layer by layer' i.e. as a product of the overlapping and mutual amplification of at least three major strikes of modernization.

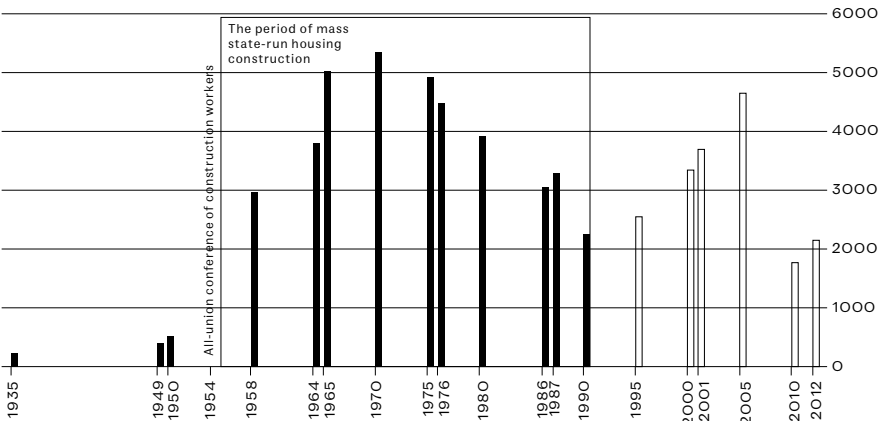
Beginning with the famous technical plan of 1957, the master plans of Moscow are becoming less proactive and more and more retroactive and 'hanging on' in character

1 ON THE PARADIGM OF BIOPOLITICS
SEE: Foucault, Michel. Society must be defended: lectures at the Collège de France, 1975-76 (New York: Picador, 2003); Security, territory, population: lectures at the Collège de France, 1977-1978 (New York: Picador/Palgrave Macmillan, 2009); The birth of biopolitics: lectures at the Collège de France, 1978-1979 (New York: Picador, 2010). Also: Foucault, Michel. Histoire de la sexualité, Vol. I: La Volonté de savoir (Paris: Gallimard, 1976)

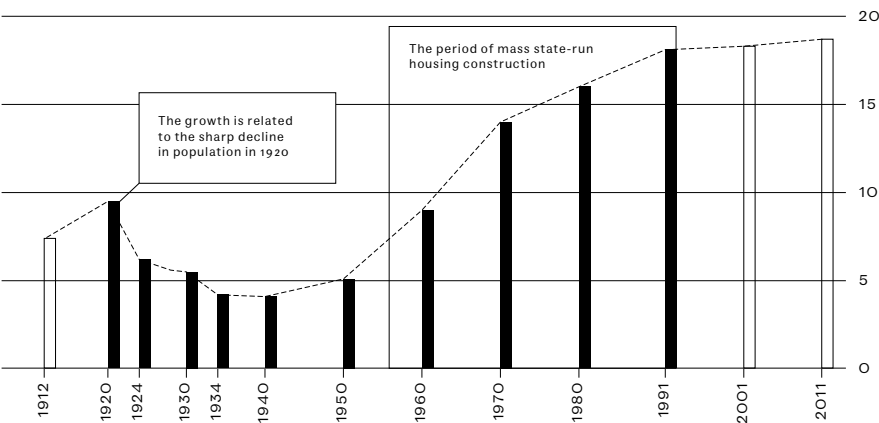
Moscow population growth
1902-2012



Housing construction, thousands sq. m. per year
1935-2012



Sq. m. of housing per capita
1912-2011



- 1) the revolution in the realm of formalization and instrumentalization of **knowledge**, which has paved the way for the development of 'information society' and 'knowledge economy';
- 2) the rapid and successful integration of the achievements of **technological revolution** into the everyday life of urbanites, which has become a pillar of the ubiquitous technocratic optimism;
- 3) the dramatic shift in common understanding of goals and premises of **artistic communication**, which has given rise to such phenomena as 'contemporary art' and 'modern architecture'.

Knowledge: the numerical matrix instead of spatial-geometric and symbolic imagination

In his recent book, "The Possibility of an Absolute Architecture"², architect and theorist Pier Vittorio Aureli clearly suggested comparing urban development based on architectural principles, on the one hand, and urbanization as a process which is radically extraneous to the logic of architecture. In this same book, Aureli recalled that the word 'urbanization' and the initial principles of urbanization theory became part of European practice by the engineer and planner Ildefons Cerdà, who, in 1860, proposed an innovative plan to expand Barcelona. The plan was based on the using a potentially unlimited number of rectangular grid blocks. However, the most remarkable aspect of this plan was not the equally-spaced grid which has been typically used in urban planning ever since Hippodamus drew up his plans of Piraeus and Miletus in the 5th century BC. The block in Cerda's approach had been employed not first and foremost as an elementary unit of an urban space, but rather as basic unit for quantitative calculation of the entire set of population's functional needs: one church per 9 blocks; one market per 4; one hospital per 16; etc. In other words, Cerda had liberated the concept of city from both its traditional link with the notion (existence) of centrality and its affinity to corporeal space — by effectively reducing it to a pure mathematical formula, much reminiscent of the abstract scientific formula of a chemical substance.

Less than a century later, these same incredibly compact and quantitatively mathematical ideas have shaped the development of mass construction in Moscow and in other cities of the USSR, in which the simplified layout of apartments was determined by standard residential living standards and demographic data; the configuration of building blocks — by these layouts and the thoroughly reduced product lines of 'Housing construction plants'; the placement of buildings and spatial compositions of neighborhoods — by medical standards for insolation and 'radii of availability' of various service institutions and outlets, prescribed by the 'SNIPs' ('Construction norms and rules', issued by state-run research institutes).

As opposed to traditional architectural thinking, which on its deepest lev-

2 AURELI PIER VITTORIO
The Possibility of an Absolute Architecture.
Cambridge: MIT Press, 2011;



лева —
Кубик,
Справа —
Кубик,
И ещё на кубик —
кубик.



растут
Перед нами
Этажи за этажами...
И за семьдесят часов
Дом из кубиков готов,
Дом из кубиков готов,
Он достал до облаков!



UTOPIA AND REALITY?

El Lissitzky, Ilya and Emilia Kabakov. 2012.
Fragment.

el never ceases to be a deductive logic of embracement of varieties and multitudes, this scientific/technological approach turned out to be primarily concerned with an inductive generative algorithm, therefore implying the cleansing the city dwellers of all their inherited individual cultural characteristics, which were regarded as non-essential and dispensable moments. The concept of human being was shrunk here to the notion of a 'representative of a particular biological species', and the human existence in the city was rethought in terms of what Italian philosopher Giorgio Agamben has defined as 'bare life'. Correspondingly, the overwhelming complexity of traditional urban scenery had been abbreviated in this case to an ultimately simple conceptual triade: green landscape, 'sleeping shelves', mechanical transport (almost the Cerda's 'chemical' formula, although with no churches, much less markets etc.). This being so, it is important to bear in mind that, beside the 'functional', 'industrial' or 'fordist' system of planning, the Soviet 'microrayon' type of environment has embodied and expressed the historical conceptual framework of this planning paradigm — i.e. the poetics of all-inclusive equality, collective turn to the scientific world view and the commencement of enormous rational transformation of life, something quite akin to the Christian kenosis.

Technology: mechanized mobility, conveyor and total interior

The simplest example of the scientific and technical generative abstraction are the concepts of "speed" and "acceleration". The most obvious (though not the only) explanation of the decision, accepted in 1960 regarding sudden expansion of Moscow's borders to the current MKAD- was the increased capabilities of both passenger and truck transportation.

In a famous book "Culture Two"³ Vladimir Paperny has colorfully described the dromomania and the euphoric celebration of the break with the roots", which distinguished Soviet post-revolutionary culture until the onset of Stalin's "freezing". Splash of the population's mobility during Khrushchev's "Thaw", Paperny touched only briefly and mostly in connection with the emergence of extensive subculture of organized and informal tourism. Meanwhile, it was precisely Khrushchev's and early Brezhnev's period that implemented the simultaneous large-scale diversification⁴ and integration of mechanical transportation into a unified nation-wide network, as well as significant reconsideration of its role as an instrument of territorial development and maintenance of safety.

It is interesting to note that the massive transformation of Soviet infantry into a 'motorized infantry' had been initiated around the same year (1954), when the eminent 'All-union conference of construction workers' had launched the thirty five years long campaign of state-run mass construction of prefabricated housing in all major USSR cities. No less remarkable are the ubiquitous signs of a sudden 'triumph of mobility', disseminated across the pages of Soviet publications, devoted to the topic of mass housing construction. One particularly stunning example is an illustrated children book by E. Moshkovskaya and E. Pernikov, published by 'Detgiz' (State publishing house for children) in 1963, which was apparently aimed at introducing the new progressive technology of construction from prefab 'one room units' to the audience of Soviet infants. The brightly colored panoramic view

3 Vladimir Paperny. *Architecture in the Age of Stalin: Culture Two* (Cambridge University Press, 2011)

4 In particular, between 1950th and 1975th, automobile transport almost caught up with the railway transport by the percentage of long-distance freight traffic (according to the State Statistics Committee of USSR).



I. SEMENOV. "GREAT MIGRATION PERIOD (V LKERWANDERUNG)", 1966. Satirical cartoon from "Krokodil" ("Crocodile") magazine. Caption reads: "Over the past ten years in the Soviet Union one hundred and eight million people have moved into the new homes or improved their living conditions".

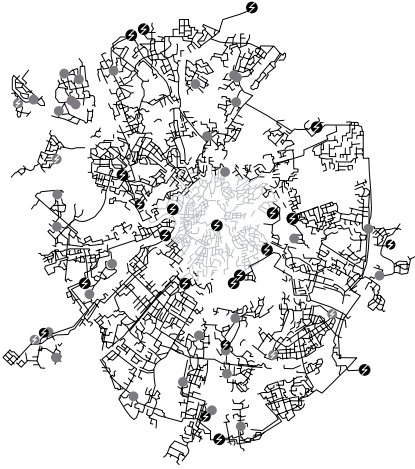
of an ideal modernist city on the main spread of this book is swarming with various kinds of movement: the sky is densely populated by planes and helicopters; the waters of a bay are criss-crossed by liners, yachts, seiners, tankers and freighters of all sizes; the broad tree-lined highway in the center of the picture is packed with hurrying cars, buses and trucks; the bottom-right corner is occupied by an open football stadium, which hosts a tumultuous match. The poem on the spread reads: "And in seventy hours the house of cubes is ready, the house of cubes is ready, and it had reached the clouds".

While the general atmosphere of the epoch was marked by the pathos of movement for the sake of the movement, then, for the administrative class and the participants of the construction process, the speed parameters were primarily synonymous with productivity. To the set of quantitative parameters that determine the static spatial relations suggested by Serda, the practice of industrial housing construction has added a remarkably new parameter associated with time, which has probably left the most significant imprint on the appearance of the new districts, - namely, the parameter of speed construction or the amount of residential floor area produced per year, which was measured in millions of square meters. In the "Memories" of N.S.Khrushchev, published already in post-soviet Russia, he mentions not that many figures, but two of them seem to be particularly well preserved by his memory as a subject of deserved pride: at first, almost tenfold increase of annual residential area put into operation, that has been achieved in the period from 1949 to 1964 (0.4 and 3.8 million sq. m., respectively⁵); secondly, the fact that during the first few years of operation of the construction industry in a new industrial mode, Moscow construction industry had managed to build the same amount of housing, as it had built during the whole preceding 800 years of Moscow's history (11 million sq. m.). Since as early as 1930-s Khrushchev has personally supervised all the preparatory and intermediate stages of the construction's transfer to precast concrete and working off industrial panels, including recruitment of engineering personnel and struggling with Ministry of Construction, which he won using his lifetime experience of a party functionary and his expert knowledge of some subtle features of Stalin's character⁶. Thus, by the time of Khrushchev's ascension to the top of the party apparatus, his radical reform of the construction sector was not just a thoroughly premeditated, but an ongoing program - two worlds' largest at that time reinforced concrete plants for the production of building panels, located at Presnya and the city of Lyubertsy in Moscow Region, were launched in 1952, a year before the death of "The Farther of Nations".

One of the key ideological terms in the dictionary of Khrushchev's "Memories" - is the word "dispersal" (for example, dispersal of universities throughout the provincial cities). There are many indications that the main points of his administrative and political agenda - such as restoration of democratic norms of internal Party life and the creation of economic councils - were conceived as interconnected aspects of the overall change of the development vector from "vertical centripetal" to "horizontal centrifugal". However, the truly structural role in the "dispersal", that begun under his leadership, were not primarily by the enhanced transportation and conveyor-type housing production, but technological innovation, which he barely mentioned, - creation in the USSR's capital of the world's largest central-

5 It is curious that the figure for 1964 mentioned in Khrushchev's 'Memories' seems even underestimated in comparison with the official data, according to which, by 1965, construction of mass industrial housing in Moscow amounted to 5.02 million square meters. - Central Statistical Administration of RSFSR. National economy within 60 years. Statistic Yearbook. - M., Statistics, 1977, p. 222.

6 Memoirs of Nikita Khrushchev: Volume 3: Statesman, 1953-1964 (University Park, PA: Penn State University Press, 2007)



The principal scheme of Moscow centralized power and heating system with locations of major CHP plants

ized network of heat supply system, based on the new technology of combined heat and power (CHP).

Construction of the large combined heat and power stations and branched heating systems started in Moscow in already 1930s, but precisely on the eve of Khrushchev's great leap forward at the front of housing construction — between 1950th and 1955th — a large-scale campaign was carried out, aimed at the elimination of pre-war coal-fired boilers and the transfer of all existing housing stock to the central heating system. With the turn of the 1960s a series of six one-million-kilowatt CHPs was gradually constructed, each of which was able to heat a whole group of urban districts- collectively they still produce over 70% of Moscow's electricity. Efficiency factor of CHPs has reached an unprecedented level of 90% and more - precisely because they were connected to a relatively compact rows of multi-sectional housing blocks that are capable to completely absorb the millions Gcal of heat, generated as a by-product of electricity production: thus, the microrayons and CHPs formed a kind of economical biocaenosis, which allowed the most efficient use of every cubic meter of the burned fuel.

Switch to the microdistricts with branched district heating system can be interpreted as a radical extension (dispersal) of the old familial and polis-scale habitat: the equivalent of a traditional base housing unit at the new stage of city evolution became not a flat, an apartment building, or even the whole microdistrict itself, but a vast area, covered by the network of particular CHP or thermal power station. The principal partitioning of a territory, fundamental from the practical and symbolic points of view, had been relocated in such spatial model to the level of boundaries of immense CHP's and heating plant's "operational area", unknown to an ordinary citizen, while the apartments and houses have turned into some sort of interior design elements of a single giant "oikos" with a single energy center.

All the above is very consonant with the key propositions of "spherology" elaborated by the German philosopher and design theorist Peter Sloterdijk, who speaks of historically irreversible transformation of habitable space of modern civilization into the total interior, the main prototypes of which he sees in Joseph Paxton's "Great Orangery" and "Crystal Palace" — titanic artificially climate-controlled, which sheltered large parks for public festivals⁷. In this light, the desire of some contemporary architects and critics to consider buildings of the modernistic era not as architectural works, but more as pieces of furniture, is quite understandable⁸. Words "mobility" and French 'meuble' ('furniture') descend from a common Latin root, and therefore it is quite natural to read the industrially mobilized landscape also as a furnished landscape.

7 ON PETER SLOTERDIJK'S SPHEROLOGY SEE:

Peter Sloterdijk. *Sphären I: Blasen* (Frankfurt/M.: Suhrkampverlag, 1998); *Sphären II: Globen* (Frankfurt/M.: Suhrkampverlag, 1999); *Sphären III: Schäume* (Frankfurt/M.: Suhrkampverlag, 2004); in English: Peter Sloterdijk. *Bubbles: Spheres Volume I: Microspherology*, translation by Wieland Hoban, Cambridge, MIT Press, 2011.

8 Most consistent interpretation of modern architecture as furniture was launched by French architect and theorist Bernard Cache: Cache, Bernard. *Terre meuble*. Orléans: Editions HYX, 1997.



El Lissitzky. Composition. 1922

Art: zero representation and the world for the first time

The most obvious solution to the paradox of 'technologically-accelerated growth' thus can be presented as following: at a certain moment, the actors of authority, responsible for development on the scale of the entire city, become aware that the possibilities of technical realm (including the industrialized construction complex) are superior to any before-hand formal representation and therefore do not imply the regulation by such a representation. This is precisely why master plans cease to be directive documents and turn into tools of hanging on corrective adjustment. The transition to this regime can only proceed by means of breaking up all mimetic ties with previous experience, by means of a deliberate refusal to use architectural tools in order to translate any previously formed cultural contents. Here we encounter a tendency, which is common to all modernist art, namely, the propensity to allow the things to be what they are, and not to turn them into an expression of something 'more' (representations of myths, national and class identities, ideological doctrines, etc.). At the same time, it is obvious this figure of poetic 'rebirth', as well as the optimistic belief in the unlimited potential of technology, were for the most part inherited by the Khrushchev-Brezhnev modernism from the first wave of Russian avant-garde art. Let's consider how, for example, El Lissitzky describes this disruption of the centuries old line of mimetic succession in one of his lectures of 1920-s: "In 1913 Malevich had exhibited 'Black square' painted on the white background. A form was presented, which was opposed to all what is usually meant by a painting, picture and art. The author was thus intended to bring to zero all forms and all painting. But for us this zero has become a turning point. If, in the beginning, we have a row that comes from infinity, ... 6, 5, 4, 3, 2, 1, 0, which approaches zero, then, after reaching this point, it continues in an ascending way 0, 1, 2, 3, 4, 5, 6,..."⁹ Thus, Lissitzky's 'Prouns', hovering in endless open space, are the very first minimal and 'cohesive' forms not resulting from any particular global cultural memory, but something rather like the 'primordial soup' of the new universe. During the second half of the 20th century Russian architectural constructivism (formed on the basis of revolutionary avant-garde, including the works of Lissitzky) had become internationally recognized, and its interpretation as a precursor of post-war modernism is now perceived as something completely trivial. At the same time, there is a vaguely understood but not yet comprehensively articulated difference between pre-war avant-garde and post-war modernism which does not allow theorists and critics to automatically apply the term 'constructivism' to the architecture of the Khrushchev-Brezhnev period. This difference, in my opinion, primarily refers to the depth of the above-mentioned 'renunciation of expressiveness' — or of 'kommunikational kenosis'. Allowing a building to only be what it is, in the context of the 'functional method' practiced by the Constructivists, meant rejecting everything that was not practically useful for life and work. By the way, far from all the Constructivists were following this direction to the full extent. But even the most consistent, such as Vesnin and Ginzburg, were spontaneously exchanging the 'expressiveness of the decor' for something like the 'expressiveness of its function and structural system'. Having defined the functional program as the 'ontological' basis of the building, which is free from any rhetoric, the Constructivists immediately shifted from the experiments with ornamentation to experimenting with this program itself, creating entirely new functional diagrams and through them in-

9 El Lissitzky. New Russian Art. - In the book.: El Lissitzky, 1890-1941, an exhibition at the State Tretyakov Gallery. - M., 1991, p. 116

roducing utopian or symbolic pathos (i.e. rhetoric) of progress towards a new and better society.

Standard projects designed for mass construction, especially at its early stage, were in this sense way more radical in that they did not seek to convey any 'additional' meaning even at the level of functional program. More precisely, they extended the imperative of kenosis, which is the rejection of the genetically inherent desire of art to say something and thereby affect a viewer, to the functional program and structural solutions, in addition to all other aspects of design. Consequently, in post-war modernism there are no more constructivist 'social catalysts', operational roof gardens and cantilevered auditoriums — there is just sleeping, eating, working, raising children, and occasional outdoor walks in the fresh air. From this point of view, the five-story Khrushchev II-38 series buildings can be rightfully regarded as not only far more complete (if compared to the experiments of the 1920s) architectural incarnations of Malevich's 'Black Square', but even as a kind of 'squared square'.

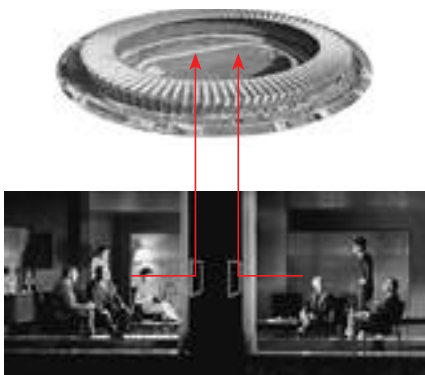
Both the 'Black Square', as a representation of 'the zero of the painting', and 'distilled' standard housing as a representation of 'the zero of architecture' are not, of course, some kind of metaphysical absolute zero. Both of them still provide a certain kind of definition of a human being and convey some kind of identity, even if it has been reduced to a minimum. As a minimized definition, Malevich being as a creature capable to contemplate and visually perceive or not perceive something definite. As already mentioned, mass housing defines humans as representatives of biological species. The economic meaning of minimal standard buildings is completely transparent, but what is the cultural meaning of these radical reductions, and is there any kind of expressible cultural meaning at all? The well-known logical rule of reverse correlation between the volume and the content of the concept may help to clarify this issue. dramatically simplifying the basic definition of (wo)Man, avant-garde reductive strategies radically expand the scope of the 'human'. In other words, catching his reflection in the extreme simplicity of modernist structures, a resident of a modern megacity recognizes him- or herself —, to use the words of Daniil Kharmis, – as a being who has "lost its father, its home and its soil", that is, as a "most universal" being. Having been reduced to a bare minimum, this very person acquires the whole world.

Conclusion: landing or teleabsence?

The architectural future of areas of accelerated growth will undoubtedly emerge as a result of collision and interplay of two opposing drives: on the one hand, the abstract, cosmopolitan principle, which requires an increasingly universal architectural definition of humanity, and, on the other hand,

the specifying or 'landing' energy, which, in the case of Moscow, is being expressed by the various efforts to make the modernist environment 'more Muscovite' or 'more European', to provide each new district with its own unique, recognizable outlook, 'to grow' within the first periphery of its own local centres, etc. It is quite possible that the sequential ageing of yesterday's and today's new housing districts will capacitate the process of 'ripening' of large urban communities with more and more distinct local identities. However, it should be noted that the evolution of the existing context towards 'blooming diversity' could hardly take place without a noticeable this kind of the territory in terms of the level of income and the ethnic composition, up to the point of emergence of mono-ethnic and 'ghettoized' enclaves.

The opposite, universal-cosmopolitan tendency may seem almost or entirely extinguished against the present backdrop featuring the rapid increase of identities, the mutual political distancing of postmodernist states, the decentralization of management, and the prevailing sentiment of 'the end of history'. It is no less suggestive, however, to interpret all of the above-mentioned symptoms as the evidence of the remaining and increasingly indisputable dominance of drive towards more and more universal urban environment. Shouldn't all of these persistent attempts to evade globalization, to deny it or openly oppose it be read as indirect yet compelling signs of its general triumph, which simply ceased to be dependent on affirmative ideological declarations, as far as, step by step, globalization irreversibly 'gets its own way' at the infrastructural and technological levels? The territories of accelerated growth provide a number of reasons to believe that this is indeed the case. Their 'historically sterile' appearance as well as the general lack of spatial integrity, while being an outcome of the rapid development of mechanical transportation, are in no less profound degree revealing of the increased role of mass electronic communications, television and radio at the first stage of their development. In a certain sense, telecommunications 'evacuate' people's attention and their very existence away from the realm of corporeal physical interactions. The 'electronic cathedral' of the informational space is succeeding the stone cathedral, the parish church and the central square as a form of expression and the symbolic support of the communal self-consciousness. Today's experience of Eastern Europe and Russia shows that it is precisely the areas of post-war industrial housing development which turn out to be the most, structurally predisposed, to the mass 'implantation' of the next generation of telecommunications systems, such as cable TV, fibre-optic lines and Wi-Fi. The peaks of man-made 'panel mountains' are drowning in the clouds of virtual reality, while the 'telepresence' on electronic forums leads to increasing 'teleabsence' of actors on the scene of urban environment. From a traditional architectural point of view, this situation can hardly be evaluated as favourable and promising. The new 'corporeal' identities, the postmodern architects were trying to create over the last decades with a frenzy probably worth a better employment, within the wider cultural perspective tend to look too conservative and even reactionary or, on the other hand, tend to appear too arbitrary and unsubstantiated to evolve into some genuine symbolic values. Perhaps even such a purely utilitarian problem as Moscow's traffic jams, — in their mobility size and chronic hopelessness — intrinsically indicate that the physical mobility in the modern megacity ceases to be something of vital importance.



TELEABSENCE
Collage. Telecommunications
'evacuate' people's attention and their
very existence and away from the realm of
corporeal-physical interactions.

Nonetheless, there are reasons for optimism. These include the proliferation of civil initiatives to protect historic sites, the emergence of lively 'cultural clusters' in abandoned industrial zones, the development of local self-governance, the increasing involvement of citizens in urban planning decision-making. The spatial development of areas has always been a product of a complex dialectic of the leading cultural trends. How quick and productive the development of Moscow's 'first periphery' will be in the foreseeable future directly depends on the extent to which the strategic positions taken by the many stakeholders in this process will prove to be reasonable, responsible and inclusive.

Gridlock, the Donut and Intelligent Solutions

**Federico Parolotto,
Davide Boazzi**

In recent years, the Moscow conurbation has experienced rapid expansion and transformation. Due to the rate of growth of the urban landscape, the city is facing a loss of identity today; it is becoming more and more difficult to control the territorial expansion of the built environment. This ongoing process affects the quality of life that the city itself can offer to its users. Among the several factors that determine the livability of a great modern city, the availability of high quality transport infrastructure certainly play a huge role; this must be conceived in terms of accessibility to the entire population and the rapid connection between places, maximizing opportunities for citizens and businesses that 'live'—every day—the wider and wider territory.

Moscow is a clear example of a monocentric urban morphology; its transport infrastructure network and public/private land use distribution. The radial axis system and orbital paths are reflected in the road fabric as well as in public transport. The current transport scheme was planned and developed over time, based on the assumption that demand for mobility all gathered towards the city center. Following these principles, the urbanized territory of Moscow has been shaped into “super-functional blocks”, accessible by few roads (characterized by large sections) which serve as connections to the big areas, which remain otherwise inaccessible. Such a configuration clearly affects traffic flow; the limited availability of roads cannot allow for proper vehicular circulation. As a result, the few large connections and rigid patterns of circulation are often congested by immense traffic jams, causing longer trip times, slower speeds and increasing vehicular queuing. Gridlock!

Today, it can be argued that the unbalanced allocation of population and work place is an increasingly alarming phenomenon in Moscow. The average population density is 10,500 inhabitants per square kilometer. Within the limits identified by the MKAD about 90% live in the strip of land located between the MKAD and the Third Road Ring (figure 1). This vast area is strongly residential and industrially oriented, with poor social infrastructure and services. On the other hand, considering the spatial distribution of jobs, approximately 70% fall in the area located within the third ring. About half of this is concentrated within the Garden Ring. This type of spatial

FIG.1 DENSITY POPULATION DISTRIBUTION

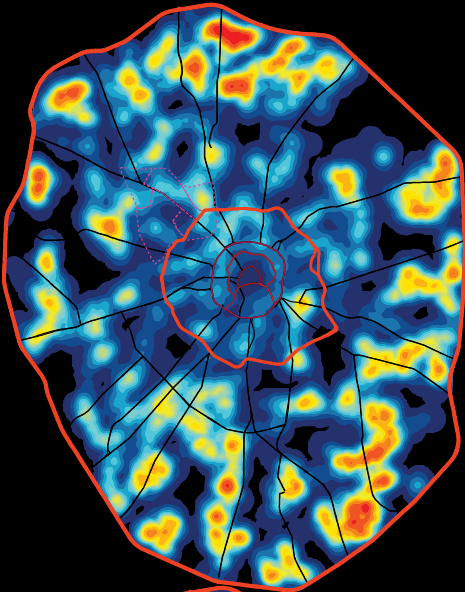
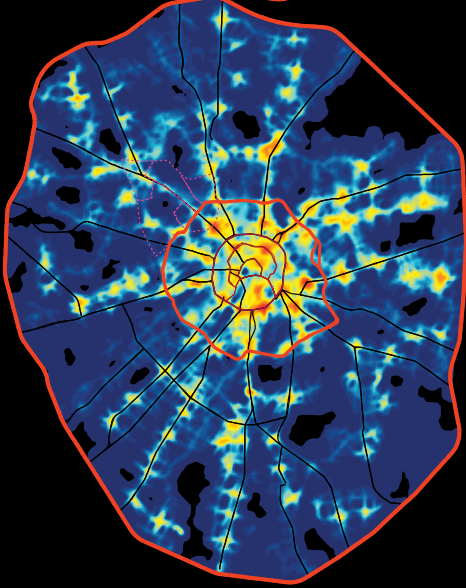
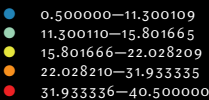


FIG. 2 PTALS CURRENT SCENARIO



2013

FIG. 3 PTALS FUTURE SCENARIO



2025

structure and distribution of functions is no longer sustainable and represents one of the main causes of the transport congestion which Moscow experiences daily. This problem can and must be tackled from different perspectives, with an interdisciplinary approach. Through the strengthening of the current public transport system, it is possible to improve the capacity of existing infrastructures and create a working network system. Accordingly, Moscow has already planned a series of important projects regarding railway, underground and surface lines, all focused to maximize the network over the entire urban area. But equally important is a new distribution of land use, aimed at the creation of new multi-functional clusters located outside the third ring. In this context, the future strategy of the city would be to organize the regeneration of industrial zones for high quality multi-functional developments, located along existing or a planned public transport axis. These would be able to reduce traffic pressure from consolidated transport axes and redistribute flow and mobility demand according to the new main traffic axis.

Public Transport Accessibility Levels

A spatial analysis highlighting the levels of accessibility to existing public transport systems and/or planned for any location can influence and shape the planning process, both in terms of configuring public transport networks, and in determining the norms that direct and regulate the distribution of land use. This method has been adopted by the London Department for Transport as a standard method for calculating the levels of accessibility to public transport in the city. It is based on the calculation of pedestrian distance from any point of the territory to the nearest public transport stop and the frequency of services to the related service. The result is an indicator, where the minimum values indicate a very low level of accessibility, while the maximum values indicate an excellent access to the public transport system. The first step is to calculate the walking distance from the Point of Interest (POI) to the nearest stops of the different systems of transport (bus, trolleybus, tram, subway and railway stations). These stops and stations are clearly considered as points of access to the service. Only the stops and stations within a certain distance from the POI are included in the calculation (640 meters to bus stops and 960 meters to railway stations).

The next step is to determine service levels during rush hours (morning peak hour) for each route that serves a station or stop. A total access time for each route is then calculated by adding the walk time needed to reach a stop or station starting point of interest, and the average waiting time for services on routes transiting that specific stop or station (i.e. half the headway). This value is converted to an equivalent doorstep frequency (EDF), divided by 30 (minutes), total access time with the aim to transform the total access time to an "average waiting time," as if the route was immediately available in the proximity of the point of interest. A weighting is applied to each line to simulate the reliability and attractiveness of a service with a higher frequency than the other services. For each available mode, the path with the highest frequency is given a coefficient of 1.0, while a value of 0.5 is attributed to all other services. Finally, these elements are multiplied to produce an accessibility index for each route; accessibility for all routes is then summed to produce an overall index of accessibility for the starting point. Using data about the current public transport in Moscow, this meth-

odology was applied to the entire urban area that is bounded by MKAD (figure 2). The long-term future scenario was derived from several sources (stoi.mos.ru; mkzd.ru and dt.mos.ru) and fixed for the year 2025 (figure 3). The future network is an extension of many subway lines, the introduction of the new Circle line, reusing rail ring for passenger transport and the strengthening of the tramway system.

The results show how major increases in terms of accessibility fall exactly into the urban territory located between the third and the MKAD ring. In particular, keeping constant population values both in terms of absolute values and spatial distribution, the following results were observed:

- The population living in areas with very low levels of accessibility to public transport (indicator values less than 5) increases from the current 5.2 million to 4.4 million in the future scenario.
- The population living in areas with low levels of accessibility to public transport (indicator values ranging between 5 and 11) goes from the current 1.0 million to 1.2 million in the future scenario.
- The population living in areas with high levels of accessibility to public transport (indicator values ranging between 11 and 20) runs from the current 0.6 million to 1.0 million in future scenario.
- The population living in areas with high levels of accessibility to public transport (indicator values greater than 20) goes from the current 0.2 million to 0.4 million inhabitants in the future scenario.

There is no doubt that the public transport system will be the foundation of sustainable city development, but future planning cannot be based solely on the improvement of transport networks; it must also consider new mixed-use developments with particular attention to the design of open spaces and collective services.

Connectivity Analysis

This is a connectivity case study analysis related to pedestrian and public transport network. The case study area chosen is identified by the red polygon on the maps; a unique urban cluster, surrounded by a huge railway infrastructure emerging from the “fusion” of five different rayons of Moscow municipality. These settlements are as follows: Sokol, Khoroshevskiy, Aeroport, Savelovskiy and Begovoy. These five neighborhoods demonstrate different territorial characteristics and land use, but undoubtedly share the same major road infrastructure, in particular the Leningradskoye highway and Volokolamskoye highway – Leningradskiy prospekt, which crosses the study area along from NW–SE. This infrastructure axis is highlighted in the image of the road hierarchy of the case study area (Fig. 4). Using typi-

FIG. 4 CAR CONNECTIVITY



FIG. 5 PEDESTRIAN CONNECTIVITY



FIG. 6 PUBLIC TRANSPORT CONNECTIVITY



1 BWC, or link betweenness centrality, is the number of directed shortest paths that pass through the given link. The command executed on the investigated networks calculates the betweenness centrality of each link and saves the result as a link property. Links with higher BWC are more central in this measure.

cal algorithms of complex networks analysis (Link Betweenness Centrality — BWC),¹ a connectivity indicator was generated for each section of the network in the study area. This indicator gives the number of shortest paths between every two nodes of the network related to the study area and is calculated for all the arcs of the network, generating an outcome that can be identified as a hierarchical pattern of pedestrian connections within the intervention area (Figure 5).

The roads designed for pedestrian access were excluded from this analysis (e.g.: Volokolamskoye highway). This diagram suggests the following:

- The powerful radial road infrastructure NW–SE, the highway, represents a physical barrier between the northern and southern portions of the study area; the pedestrian connection between the north and south areas intervene strongly on the side road of Schosse (Leningradskiy Prospekt), until reaching a crossing walkway or underpass.
- The irregular distribution of crossing connections determines a general extension of pedestrian paths, given that the steps may be as much as 1–2 miles between them;
- The structure of the pedestrian network requires the use of the side-road of the highway to move from one node to another, despite the fact that it is unsuitable for increased pedestrian use.
- In the south, where large industrial areas are found, there is a lack of permeability between the highway and private developments. This configuration of the urban fabric further pushes pedestrians to use an infrastructure in order to circumnavigate industrial areas, channelling their movements to mainly dedicated connections.
- The north portion is definitely more permeable; the absence of large industrial areas enables the activation of pedestrian paths parallel to the position of the internal highway, opposite to what is observed in the South.

This analysis highlights two types of barriers to pedestrian permeability: major road infrastructures (and railway), and at some point the presence of extensive private/industrial areas; both strongly affect the pedestrian permeability of territories, affecting the connectivity of large pedestrian areas and the shape of pedestrian paths. As a result, in the third image (Fig. 6) the connectivity analysis is observed in a more complex network, formed by the merger of two levels: the level of the pedestrian network and the level of public transportation network. The communication nodes between the two networks are located at bus, trolley, tram and metro stops.

The analysis of pedestrian intermodal network connectivity and public transport shows a public transport network with an effective surface navigation mode within the borders of the southern portion of the area. Conversely, the lack of dissemination of public transport lines on the surface

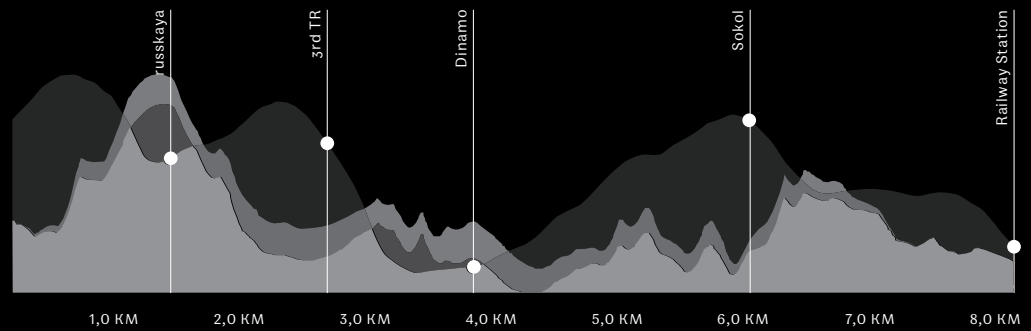


FIG. 7 CASE STUDY INDICATORS

This well represents the effect induced by planned public transport improvements

- Population
- Accessibility Existing
- Accessibility Future

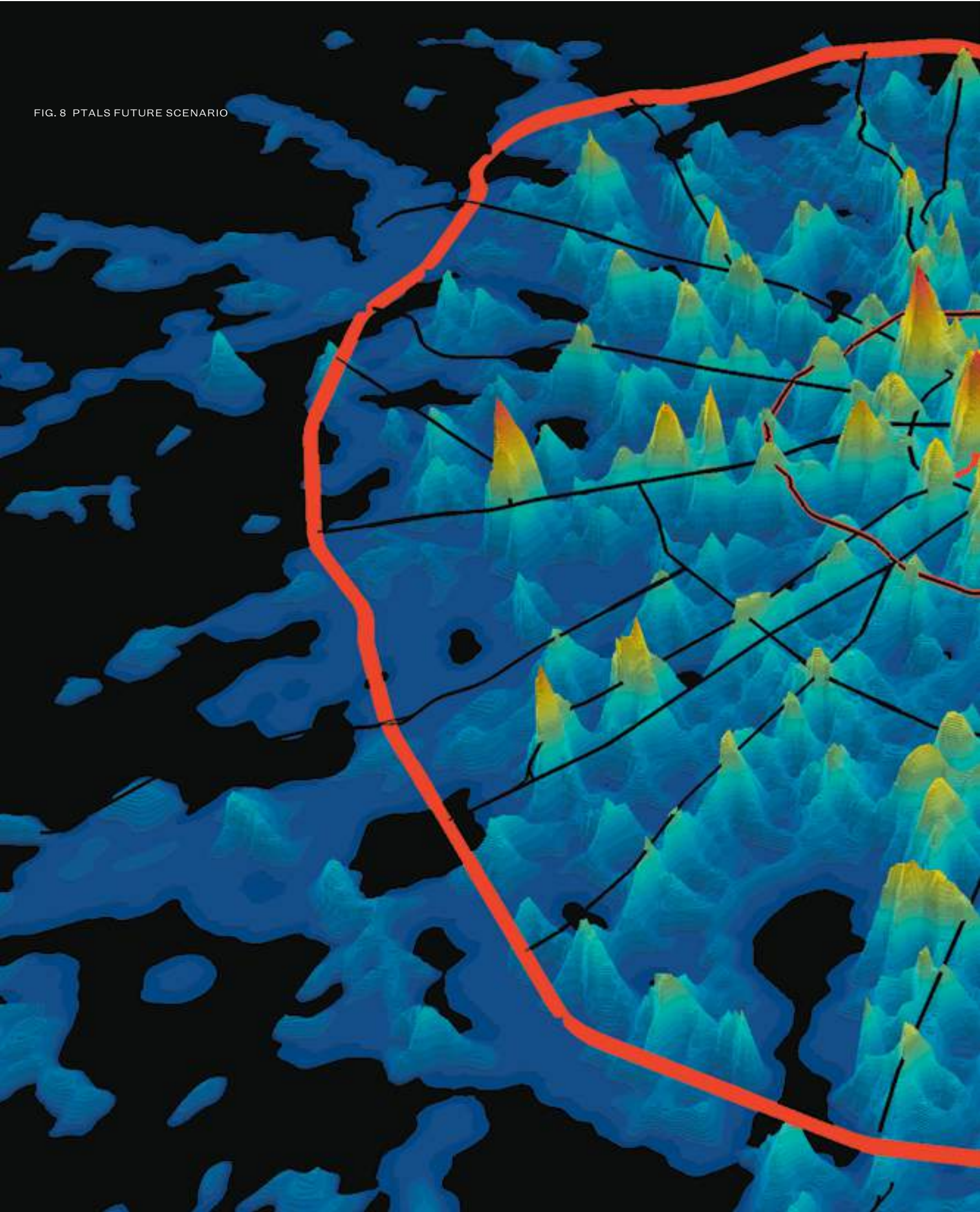
in the North leads to a dispersal of walking trails towards the great highway node in Dynamo Metro, underlining again the centrality of highway, its infrastructure and its more important nodes in the internal connectivity within the study area. Firstly the careful planning of pedestrian routes, and then the dissemination of surface public transport are solutions that must aim for improved connectivity at both local and neighborhood scale, ensuring fast connections and car-free areas within the surrounding environment. The planning of these mobility networks at a reduced scale, combined with a careful distribution of the functions and land use can act synergistically to guide sustainable urban space redevelopment at the local level. Finally, it is possible to show the indicators (population density, and levels of accessibility to public transport) previously evaluated for the entire city along the section shown in the following image (Fig. 7). This well represents the effect induced by planned public transport improvements

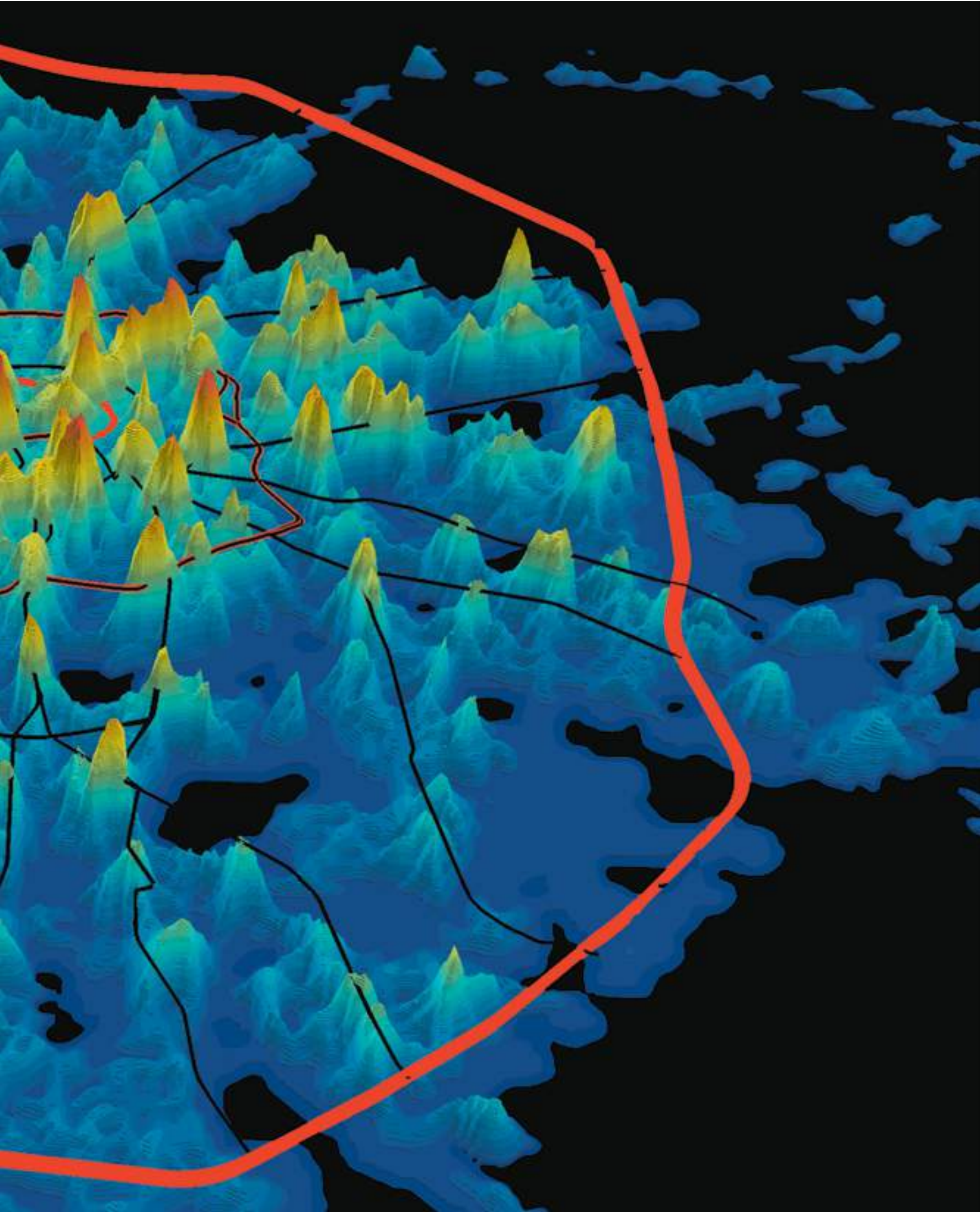
Intelligent Solutions?

Transport planning is changing radically; there is an urgent need to produce sustainable and resilient cities which require new operational methodologies. The traditional way of addressing capacity in cities, that has led for instance to the once powerful one way traffic system typical of central Moscow, needs to be revised in favour of sustainable transport modes. A strong focus used to be given to motorists, but it is now clear that the metropolises of the western world are progressively going through a process of space and time redistribution, a process aimed to give a more balanced weight to various modes of transport. The city of the future will need to reduce car densities in city centres; by reducing space given to the automobile or by introducing other appropriate policies for cars that need to access the city centre, changes have to be made. Such policies can be seen for instance in Paris with the progressive space redistribution; recently the Les Berges project has been implemented and part of the express way alongside the Seine has been closed to cars in favour of a public space, whereas in London and more recently in Stockholm and Milan, the introduction of a congestion charge has dramatically reduced the amount of vehicles that enter the city centre.

It is clear that Moscow is endowed with a low number of inhabitants in the central part of the city, whereas the “donut,” as it is called, contains the vast majority of city dwellers. This generates a strong commuter pattern that has to be balanced by introducing services and tertiary functions in the donut, together with the increase of residents in the central part of the city. Such land use redistribution will need to be centered on public transport hubs; the map of Public Transport Accessibility Levels (PTAL) bringing to the surface the hidden shape of public transport in the cities (Fig. 8). It is the topology of public transport that will be the driver of land use densification and redistribution; the contours of the PTAL maps will define planning policies that will not generically locate land use in the proximity of public transport but rather will respond to the specific “shape” of public transport densities. The future of Moscow will need to address the way transport operates today by reducing the usage of the car, enhancing public transport connectivity together with more intelligent land use redistribution.

FIG. 8 PTALS FUTURE SCENARIO





Open Space

A research project focusing on pedestrian accessibility, the study was developed by 20 students of MArchI into two stages. The first step was collecting information from various maps, after that an investigation was conducted to verify and correct the data. As a result, four categories of territory access were defined.

CLOSED

Entrance only for those who work in the area.

Examples: railroads, rivers and lakes, transport arteries with no traffic lights, military objects, etc.

86.72 km² — 11%

LIMITED ACCESS

Entrance with validation through security control point.

Examples: brownfields, garage cooperatives, offices, residential communities.

122.75 km² — 15.6%

TIME LIMIT

Entrance to the territory is open for everyone without additional validation, but is limited to working hours. Within the off-hours the territory has no access.

Examples: education facilities, state institutions, parks.

89.72 km² — 11.4%

OPEN

Zones enclosed by fences, but do not have any limits for free access

Examples: parks, sport facilities, etc.

19.45 km² — 2.4%

Total enclosed area (all four types) — 40% of the territory between the Third Ring Road and the Moscow Ring Road (318.64 km²).

From which only two are truly closed, which is 26.6% (209.47 km²).

Moscow's periphery can be considered an open space: it is largely available for citizens in the day time.

Pedestrian availability

Current situation

- Closed territories
- Limited access
- Temporary restriction
- Open territories
- Territories with no defined borders

73.4%

Industrial zones form the most vast territories of limited access. Potentially these territories will be re-opened, meaning that the proportion of closed areas within the city area should decrease.

In the residential districts, most of the territory is fully accessible. Areas closed to general public are mainly represented by schools and kindergartens.







Construction Waves 1917—2013

CONSTRUCTION STAGES

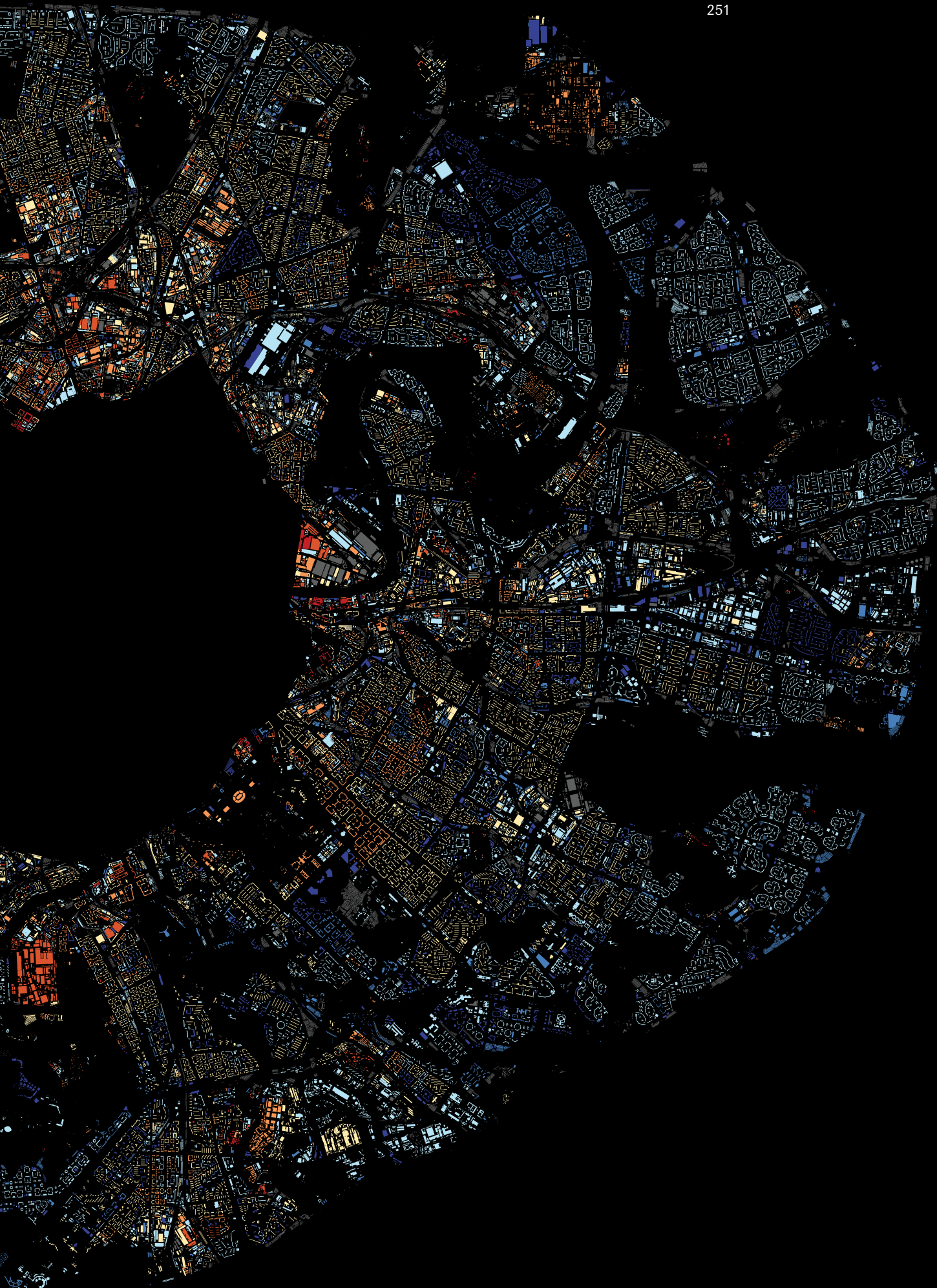
Seven various stages of development were selected. Processing of digital maps was made using the database of Rosreestr. The number of units built at each stage has been identified using a percentage ratio. Less than 2% of development relates to the period before 1917. The largest number of buildings were constructed from 1957–1970 and from 1970–1991.

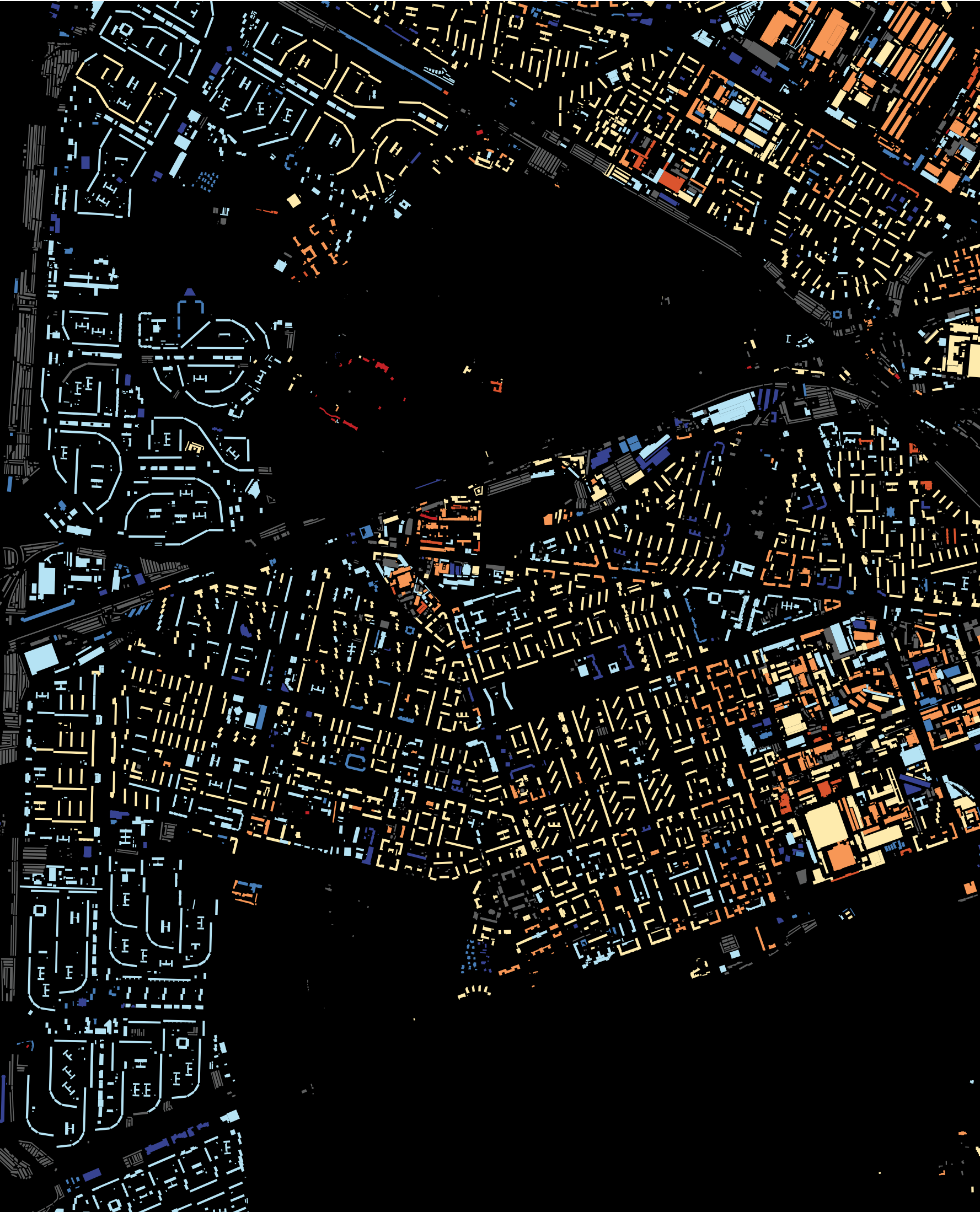
For the period of 2000–2013, development has infill quality, mainly increasing the density. The age and date of construction of 27% of building types was not identified, which for the most part include such types as car garages, industrial and service buildings.

Periodization

- Before 1917 — 1.17%
- 1917–1935 — 2.83%
- 1935–1957 — 9.62%
- 1957–1970 — 23.29%
- 1970–1991 — 25.8%
- 1991–2000 — 5%
- 2000–2013 — 4.8%
- not recognized — 27.49%











Before 1917



1917-1935



1970-1991



1991-2000



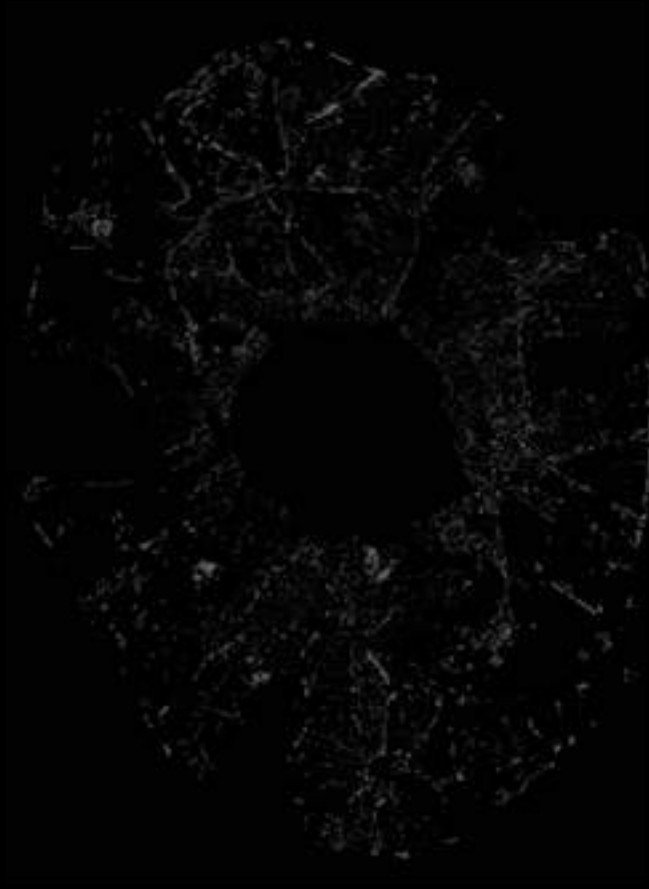
1935-1957



1957-1970



2000-2013



Not recognized

Habitat

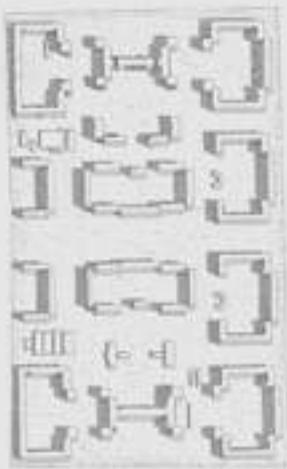
- 1 Villages — individual dwellings — 1.4%
- 2 Workers' settlements 1920–1930 — 0.4%
- 3 Stalin era housing — 7%
- 4 The 1st series of 5-storey 'Khrushchev buildings' — 22.1%
- 5 Early series of panel houses, 9-12 floors — 28.1%
- 6 Later series of panel housing, 14-22 floors — 27%
- 7 Modern residential complex — 6.3%
- 8 Mixed-use — 7.7%



1



2



3



4



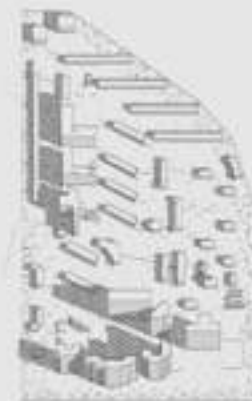
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6



7

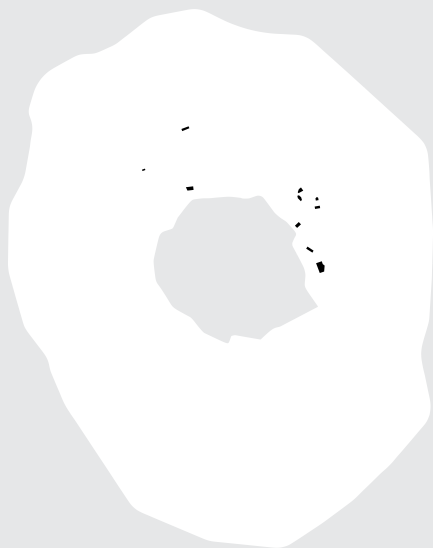


8



VILLAGES — INDIVIDUAL DWELLINGS (%)

1.4



WORKERS SETTLEMENTS 1920–1930 (%)

0.4



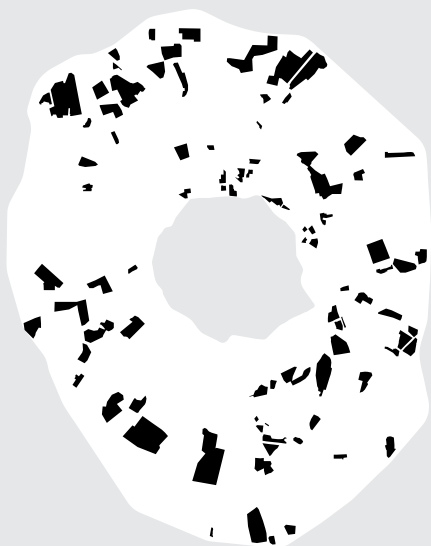
STALIN ERA HOUSING (%)

7



THE 1ST SERIES OF 5-STOREY 'KHRUSHCHEV BUILDINGS' (%)

22.1



EARLY SERIES OF PANEL HOUSES, 9-12 FLOORS (%)

28.1



LATER SERIES OF PANEL HOUSES, 14-22 FLOORS (%)

27



MODERN RESIDENTIAL COMPLEX (%)

6.3



MIXED-USE (%)

7.7

Brasilia. Residential Superblocks

Helene Afanasieff



Brasilia, the federal capital of Brazil built in the 1950s, was an experimental ground and a playground for the world's leading architects. Designed from a birds eye view resembling wings of an airplane or a bird, the challenge of this city has been to adapt the ideal vision of the past while considering the needs of inhabitants today. The concept of residential superblocks, proposed by Lúcio Costa in the “Brasilia Pilot Plan,” has its roots in early modernist buildings, including Russian constructivist ones built in the 1920s. Ville Radieuse, a project by Le Corbusier that has never come into life, also influenced strict modernist city zoning – sleep, work, and leisure. It is worth noting that different architects were working on special projects for superblocks. In 1959, it was Oscar Niemeyer, inspired by the principals of modernism.

The main urban feature of this concept was to build a city that avoided the high construction density typical of Brazilian cities. In Brasilia, architects planned residential blocks as polyfunctional complexes surrounded by green zones, public utility centers, and multi-storey apartment blocks with public spaces in form of passages that wrapped around building structures. Buildings couldn't be higher than six storeys, so parents could watch and hear their children playing in the yard. Quarters usually occupied a territory of 280x280 meters. The provision and construction of schools and shopping centers was calculated according to the size of the superblock complex. Though interconnected, superblocks can still function autonomously. Together they form a territory that is now in focus of the city planners, who inherit the city and create strategies for its development. The walkability of a city remains a challenge, as limited options for transportation and vast distances have created a population dependant on cars.



Why they don't like walking in Tolyatti

Valentina Melnikova



Tolyatti: one of the few Russian cities of the last generation formed on the basis of a large industrial complex; a fast-growing city based on the structural unit plan of an inter thoroughfare area that replaced micro-districts. Each module of the planning grid in the area had dimensions of 1x1 km, the residents in the area numbered between 32,000-34,000. The first two quarters were implemented in full, and from then on, the area organically developed. The absence of a good shops for daily necessities led to the fact that at the end of the day, shopping centers could not cope with the amount of customers, as most of residents worked at the same factory. Large-scale street grids, and drab living environments formed by model houses, which were sometimes over 300m long, forced the city's population to give preference to traffic when moving around and to spend their free time at home.

Subsequent stages of the city's development proceed with deviations from the master plan: a dispersed network of small shops and service enterprises replaced numerically small but large trade and service centers. In the design of the New Tolyatti, the formation of an urban culture, the various forms of urban life were not taken into account. In construction built at a later time, deviations from the project that were dictated by real life increased comfort levels significantly. The reconstruction proposed will return the environment to a human scale and provide a number of functions with a variety of choices, a distinguished feature of an urban culture.



Open Space Planning

ARCHITECTURE

Nina Kraynyaya

Interview: Olga Kazakova

KRAYNYAYA NINA PETROVNA

Nina Petrovna Kraynyaya graduated from Moscow Architectural Institute in 1959. From 1960 to 1966 she worked at Mosproject-1 Architecture Institute as part of planning studio number 10, where she was working on urban planning and development of the South-Western districts of Moscow. In 1976 she defended a thesis on the problem of the organization of pedestrian routes in the structure planning of a microrayon.

— **In your opinion, what is the value of modernism in urban planning?**

I found three valuable points in modernism, and they are important spatially, but not culturally. Firstly, a functional planning structure, microdistrict (microdistrict), is important. It survived as a kind of an urban conquest, though transformed in its understanding very strongly. Earlier before a microdistrict was "our everything": urban planning norms were practically a detailed description of planning, development and maintenance of a functional microdistrict. Read the rules, lay out blocks on a model, and you will get a finished project. That was enough to get an approved project. Today a microdistrict is a kind of territorial control area. It is important that it complies with approved standards, is within walking distance to transport links and has a specific minimum of social services. This minimum includes, for example, a school and a kindergarten. Thus, a microdistrict is a regulator of living standards and arrangements. Today no one talks about either a composition or integrity within a microdistrict. It is more of a formal foundation, but a necessary one, because otherwise it would be quite difficult to control development of an area. My colleagues from Krasnoyarsk told me that when they began planning microdistricts and distributing individual microdistricts to developers, they later found out that there was no place for schools.

— **What is the second valuable point about modernism?**

— The second point that seemed important to me was the discreteness of a site development. Except for the first wave of avant-garde, it never happened before that apartment buildings were dispersed filling some territory, i.e. a quarter. And first in the avant-garde, then in modernism — it was the main thing. A slogan of the Corbusian times was a free-standing house, surrounded by open green space and lit by sun — it's the best housing.

— **When planning did you ever consider this Corbusian principle?**

Of course. When we started to design, examples of such discrete development already existed in Moscow. In 1962 we started designing four microdistricts in the Belyaev area. Leo Dolinin was a brilliant draughtsman, I was an inventor, and Susanna Oraevsky was a great manager and planner. Each of us found ourselves there. Yakov Borisovitch Belopolskiy gave us total autonomy in a way. He was the head of the planning studio of Mosproject. Actually it was a sort of an architectural deportation, working for a planning team.

— **These were suburban areas and it wasn't prestigious working there, was it?**

It was not interesting, because the funding was limited and some compositions were not affordable.

— **So famous architects back then did not want to work with the planning of microdistricts?**



The project team led by the architect. N. Osterman. An experimental quarter number 9. Novye Chermushki, 1956-1958

The first major supervisor who addressed this with some responsibility rather than interest was Alexander Grigoryevitch Rochegov, director of Mosproject. An enactment aimed at densifying the already constructed areas and areas under design came into force. And Alexander Rochegov would walk around the teams daily, watching how we cope with it.

— **What year did the enactment come into force?**

It came into force around 1965.

— **What was the reason?**

Moscow lacked space.

— **Even with all of those huge new territories incorporated into Moscow?**

Yes. When all of those territories were almost developed it became clear that we are wasting them. Density was too low and infrastructure was too expensive. Then we started putting in additional houses. Today it is easy to trace the three waves of that densifying process. This can be seen on series of model houses that were 'inserted' according to the number of storeys. The first to be inserted were the 16-storey houses, then 16-storey and then even higher.

— **When working on Belyaev, what kind of houses were you able to choose from? How many storeys were they?**

This is a separate and a very important issue. If you switch from the idea of a free-standing house to some specific economic interests, I have never encountered in Western countries such strict standardization and economic specifications. Both there and here we had budget accommodation as intended. But since the construction was carried out at such a scale, everything was way tougher. We were given mostly meridional types of houses. It is very important for the morphology of the development concept. A meridional house is built with its long side from north to south, along the meridian. It has both eastern and western sun, meaning that the whole house and all of its apartments are being equally insolated. And we were given only one house with latitudinal orientation, where most of the apartments are facing both sides. But it should be strictly placed oriented from east to west. There were other requirements for house placement — doorways and entrances had to face the least insolated facades. Therefore in some cases, houses forming a perimeter of the courtyard had their entrances facing this courtyard, while others overlooked external territories. And at that ratio — ten meridional houses to one latitudinal

22-storey buildings can no longer be called modernism. It is postmodernism. And this problem became clear – there was a total lack of any connection between a person, a house and the adjacent space

house — attempting different compositions rather than just horizontal ones. It is extremely hard.

As for the aesthetics, it is a different story. I was thinking, 'Why were we so keen on modern forms, ranging from stools and vases to houses?' Perhaps we were very tired of something, perhaps because housing was in a bad condition and there was not enough of it. There were beautiful expensive houses in modernist style. But the style of art nouveau did not attract people. Everyone was keen on new forms. It was a subconscious expectation of the comforts of separate residency. I think this was the reason — social and psychological. We were very passionate about the novelty of the problem itself, thinking that new aesthetics was defined in architecture by equally comfortable houses.

— We discussed the value of a microdistrict as a territorial entity. And what about the discreteness of site development?

The topic of discreteness was very much exploited by our house-building complex, our economy and our government. Sun, green areas and land resources are large; the land is free and belongs to the state, so you can build as many houses as you want. The state does not spend anything on building houses; the state has chosen the cheapest and least comfortable type of a house and duplicates it in infinite amounts. And architects and city planners should try and sculpt an urban space in some way. That is, simultaneous development of large areas, organized in the form of large estates, was required by both. Urban planning ideology focused on integration of residential units and their comprehensive service, along with the production line method of construction. But architectural and urban planning ideas could not keep up with this pace. I'm trying to see what this discreteness gives us now. And here is when I can argue with those who defend the perimeter-type of construction. Why is discreteness valuable? Discrete architecture has engaged in a very interesting relationship with natural elements. Well, actually, Scandinavia was counting on it from the very beginning: that houses would be standing in green areas on a natural relief.

— But in the case of discrete construction aren't there problems like the absence of your own private place or a court? As it turns out sometimes, with a lot of space there is no sense of locality?

The distances between the five-storey houses were normal. And speaking of high-rises, 22-storey buildings, for example, can no longer be called modernism. It is postmodernism. And this problem became clear — there was a total lack of any connection between a person, a house and the adjacent space. It is one thing when the house is proportional to a

tree. Here, for example, a birch tree is almost as tall as the ninth floor. Now, there is no division between the periods of Soviet modernism and postmodernism. Before the 80s was the period a classic Soviet modernism. And after the 80s came a completely different period. And in this case by modernism I mean not so much a modernist architecture, but rather city planning techniques and solutions. That is where the change has happened.

— **It would be good to draw the time frames of the modernistic approach to developing microdistricts, especially if the majority problems we complain about today are of a later period.**

I would estimate 1985 as a starting point. What happened in 1985? A corner section was invented. Now one could splice buildings together from different angles. A desire for courtyards and streets appeared and that's why discreteness was put aside. In other words, a shift towards a new city space formation started, a shift towards environmental approach and postmodernism, towards traditional construction and semi-closed inner spaces. But at the same time, the number of floors increased significantly. And it turned out that in order to insolate both the houses and their courtyard areas, they had to be separated by very large distances. Therefore, inside of those courtyards we had to put central heating stations and child care facilities, which immediately pitched the areas into linear zones along the buildings. And as a result there are no yards or inner yard territories.

— **As a result, there are long drive lanes, all full of cars.**

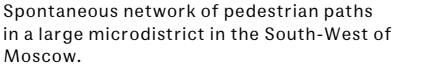
Yes, actually what we got is another street in front of the house, because the houses are so long and stand in such great distances from each other. Moreover these streets appear to be closed in some unexpected places, people just tend to put barriers without permission. So we got a completely incomprehensible transport system. And this type of construction continued for a long time. Perhaps only during the last years of Luzhkov did the rate of insolation decrease. But this convergence of high-rises immediately affected the overall illumination. That was a deadlock. On the one hand, there was an attempt to revive the traditional city space, and on the other hand, our construction business and the economic system do not allow for reducing the number of floors.

— **How was the system of internal streets and walkways arranged in microdistricts?**

In 1965, I was already troubled by the idea of these scattered houses, and a protest rose within me. I could not understand the meaning and structure of the modernist space. And we started doing it this way: a microdistrict within which so-called residential groups were drawn. The apartment complex consisted of a multiple rows of houses, blocked somewhere by a nine-storey building. In reality we had a nine-storey house and meridional five-storey houses. Here and there we had an occasional opportunity to put a latitudinal house in order to organize some sort of an inner yard and avoid having just a through space. And between the houses we organized children playgrounds and places for the elderly. Around these residential groups were big city streets. Belyaev had quite a complicated and time-consuming accessibility to bus stops. That is why we designed internal shuttle bus routes that would bring people to these stops. Of course later



A microdistrict arrangement of similar typology in Novye Chermushki in Moscow, early 60s of twentieth century.



— Yes, but here we are talking about unconstrained construction in modernism, but as a result of our conversation it becomes clear that it was never unconstrained — earthworks were expensive, the variety of houses was expensive, and increasing the number of floors was expensive too.

— Well, was there an opportunity to reflect on the subject of diversity of an area, or not? Or the main aim was just to give people a place to live?

– In general, during the Khrushchev era churches were not among the favourites. Was it hard to keep a church?

No one was paying attention to a church; it was just a non-reference object. That is, we had the right not to consider it and place a house instead of. And perhaps it is an achievement that we didn't do it.

— Yes, of course! There are no working places in Belyaev. Was it your intention to design it a purely residential area?

Yes, this is a purely residential area. Although here it is bordered with a large industrial zone. But we had no thoughts in designing a connection between the two.

— That is, work where you want to?

Yes, and be happy that you have this accommodation. So that is my conclusion. In Belyaev the study of the carcass was quite detailed, and I think I have the right to call it an attempt at a postmodernist urban development. For the reason that here we started forming spatially related groups.

— Well, yes, these combined groups of houses linked by internal streets do not look as open space planning any more.

It is not open space. And so this is why Belyaev is not a representative of the Soviet modernism. Although I want to say that it had great success among the heads of other planning studios. This means that the attitude towards free planning at the time started maturing in professional circles. But once this was added to the increase in the number of storeys, the idea died immediately, because it's just uncomfortable. Discomfort now was caused not by a lack of organized space. The houses have the wrong scale, not the one they are supposed to have.

— We started today with the fact that to this day there are three valuable features of urban development remaining in the modern age - microdistricts, discreteness of construction, and what is the third one?

It is the scale of construction. It was not invented by us, but brought from Europe, from Scandinavia. It is sufficient to consider this development as a city, for this is clearly a city, not a village or a town. On the other hand, this scale is socially effective. People who live in the 5- or 9-storey houses still somehow have the ability to communicate with each other, and they know each other more or less. In this respect the maximum is a 14-storey house. In a 22-storey house it is no longer possible. What you get there are the separated lift lobbies and apartment lounges. The stairwell is not working, because everyone uses the elevator. And the house territory does not work either. If you have over 22 floors above then this space is not attractive at all.

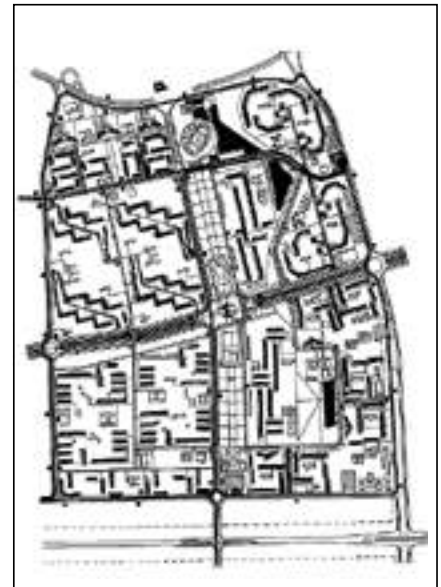
— But by such a valued scale of modernism you mean the scale of buildings, do I understand it correctly? And what about the scale of a microdistrict?

A microdistrict is very limited by the pedestrian accessibility of certain mandatory elements of social infrastructure. A school, for example, is an item that defines a microdistrict. Accessibility to a school is 750 meters, and that determines a microdistrict.

— You are saying, from the point of view of a "construction site"

a microdistrict also pays off — walking access to schools and kindergartens is necessary, and a residential quarter can barely fit so many objects of social infrastructure.

Yes, yes. There are two explanations of the transition to residential quarters construction. The first one is the need to seal transport network, so you can "leak" through these so-called "capillaries" and not just ride on the city's main highways. And the second one is the need to make courtyards. And the courtyards are a problem of storeys. A yard and altitude are incompatible concepts. High-rise buildings can only appear during discrete development. It seems that this type of discrete urban fabric is quite competitive with a residential quarter model. And it may enter the future morphological nomenclature of urban mass construction.



Project team of Yakov Belopolskiy,
microdistrict of Belyaev-Konkovo. 1964–1965

City of Ideas: A History of Planning

ARCHITECTURE

Anna Bronovitskaya

The Moscow redevelopment scheme, launched in 1919 by I.V. Zholtovsky, envisaged reshaping the ring railway, which served as a city boundary starting from 1911, by moving it closer to the southwest and encircling Sparrow Hills. At a 10 miles distance from it (about 15 km) the second railway ring was planned to be built.

Within this zone there were garden-like villages connected to rivers, radial railroads and highways, linking Moscow to nearby satellite cities. Based on Zholtovsky's scheme, practical field planning began to unwrap. In the studio of the Moscow City Council Department of Buildings, the A. Schusev group was engineering the "New Moscow" approximately within existing boundaries. S.S. Shestakov, an engineer, working for the Moscow Department of Municipal Services, was connecting populated localities within "Greater Moscow." Since the "New Moscow" plan had been already published in 1923, while the "Greater Moscow" plan was in development up until 1926, the latter took into account the merger of the political and business center of Moscow with its historical center, which by that time had gained a foothold.



I.V. Zholtovsky. Moscow Redevelopment Scheme 1919.

The most important feature of the "New Moscow" plan was a combination of an existing radial ring layout with the principles of polycentrism and "garden city". A.V. Schusev, for whom the primary objective was to preserve valuable architectural heritage and to clear the city of "ugly" buildings from the second half of the 19th and early 20th century, proposed concentrating new building development in the "Red City": a wide ring, encircling the Khamer-Kollezhsy Val and ending near the railway ring. A new Government Center was to be located on St. Petersburg highway. The South river port was to be turned into a major cargo terminal. Residential areas were to take the form of garden villages with small, one-to-four-families houses, located at the outer ring opening onto a protective forest belt, separating Moscow from the Moscow region.

The "Greater Moscow" plan of Shestakov, published as a pamphlet in 1925, considered the rapid population growth at that time, with the idea that population density in residential areas should not exceed 60–70 people per hectare. In the "old" Moscow at that time there were 192 people per hectare. In addition, the city was in need of industrial territories and open green areas; the total area of Greater Moscow was determined to be 200 hectares. Existing Moscow was to be turned into a Central planning district with all administrative and commercial life focused there. The next ring was meant to be a park and industrial zone; south-eastern and northwestern sectors were planned to become forest parks. Sadovaya Street was to facilitate new garden-city residential areas around this Park and Industrial Zone. Shestakov considered it necessary to clearly separate the city from its surrounding area in order to prevent further expansion of the city boundaries.

When selecting localities to be further developed, preference was given those within the same proximity from Moscow, in order to create a "wreath" around the city: Dmitrov, Sergiyev Posad, Bogorodsk, Podolsk, Bronnitsy, Zvenigorod, Voskresensk. However, Shestakov was still concerned that these cities would be unable to accommodate everybody in the case of overcrowding in Moscow. Therefore, agglomeration also included the second ring of cities - Klin, Volokolamsk, Rooza, Mozhaisk, Vereya, Borovsk, Serpukhov, Kashira, Kolomna, Egorevsk, Opehovo-Zuevo Kirzhach, Alexandrov and Leninsk (Taldom). Altogether these became "Greater Moscow".

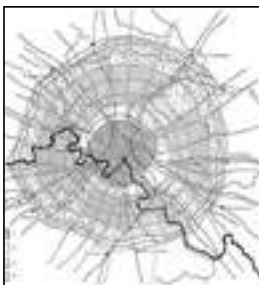


A.V. Schusev. «New Moscow». 1923

Unlike Schusev, Shestakov imagined Moscow as a monocentric city supplemented by additional localities. Shestakov went beyond his original idea and drafted the layout of the Central District. The streets, linking railway terminals and the center (the area surrounding Kremlin and Kitai-Gorod), were to be expanded and doubled, the Boulevard Ring was to become a full circle with an additional half-ring to help people travel quickly from one government agency to another. Everything was designed to ensure the efficient work commute. The Shestakov's plan, developed on the demands of the Moscow Department of Municipal Services, was implemented gradually from 1926; however in 1929 it was rejected and Shestakov was repressed.

Ladovsky's Parabola

In January 1930, the Moscow Construction journal published the article 'Moscow: Historical and Socialist' by Nicholas Ladovsky. The author criticized all existing projects of Moscow reconstruction, based on the ring system, claiming that such static form would prevent the city from normal development and growth. The solution offered by Ladovsky proposed breaking the rings in the same direction by stretching the center on the Tverskaya-Leningradskoye Highway axis and concentrating new construction in a widely expanding sector created between two new poles of attraction in the areas of Khodynka and Ostankino. This sector was selected because of its "vacant construction space available closest to the center". The rest of the city was interpreted as a museum. As a result, the construction of a Socialist Moscow according to Ladovsky's concept would preserve the historical Moscow at most. Official complaints about this plan asserted that with Ladovsky "the capital," as such, disappeared. Its brain was destroyed; with the remains of a very large industrial center."



S.S. Shestakov. Big Moscow . 1926.

DMS Survey and the Offer of Le Corbusier

In June 1930, the Moscow Municipal Services journal published a survey, aiming to determine the "social order" and to draft the agenda for the architects to work with. The survey contained five topics:

1. The future Moscow as political, economic, cultural and academic center of the country.
2. Importance of Moscow as an industrial center.
3. Growth and accommodation of population: principles of housing organization.
4. Future of the existing (historical) Moscow.

The future author of Stalin's General Plan responded to Le Corbusier's offer concisely: «Don't call an executioner, when you need a surgeon»

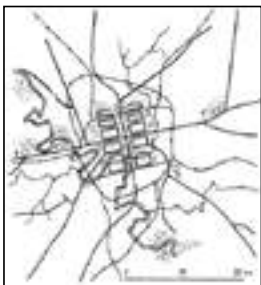


N. Ladovsky. Project Proposals for reconstruction and development of Moscow. Competition. 1932. (Solid color-center, grid-industry, dots-residential)

5. Principles of territorial organization in the city (zoning, urbanization, counter-urbanization).

The survey was taken by both professionals and ordinary citizens; the range of responses received was extremely broad, but at the same time identified a general trend in favor of restricting the population and territory of Moscow, preserving the base of the existing structure and improving the architectural expression of the key areas in the city, including its main highways. Collected material was used by the authorities to develop a Moscow General Reconstruction Plan, adopted in 1935. The most notable result of this survey was a response from Le Corbusier who sent his exclusive project of "New Moscow," where he imposed the principles of his "Plan Voisin" of 1923 on Moscow's topography: functional zoning and development in the form of identical towers built as a regular set and surrounded by a park. Clear symmetry of geometrically-shaped districts – administrative, industrial and residential – granted concession to only one particular place: the Kremlin. The surrounding small area of the historical center fell into the gap between vast areas of new construction, which would completely replace the existing city. In a changing political and aesthetic climate such proposal was used to further discredit modern architecture. The future author of Stalin's General Plan responded to Le Corbusier's offer concisely: "Don't call an executioner, when you need a surgeon."

Kurt Mayer's Scheme

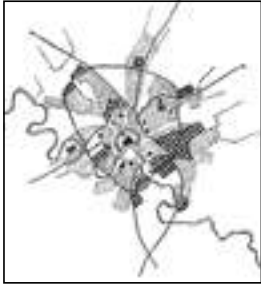


Moscow Reconstruction Projects. Le Corbusier. 1932.

The Moscow Department of Municipal Services commissioned the foreign expert, Kurt Mayer, the former Chief Architect of Cologne, and his team to develop a new concept of the plan. The assignment determined the population of future Moscow of 4 million in an area of 56,000 hectares (15 km radius from the center). In the scheme adopted in spring 1931, Mayer proposed to divide the city by radially arranged neighbourhoods, each with its own administrative and cultural center. The areas were to take elongated rectangular shapes, divided by green wedges directed towards the center. The radial highways forked closer to the outskirts; complementing tangential highways connected the areas with each other. Mayer's plan was favored for its "correct political" approach: the formation of the areas based on industrial principles "contributed to the proletarianization of the population". Questions of connection to suburbs were not considered: it was initially agreed that the suburbs were meant to be independent agricultural and industrial localities.

General Plan of 1935

Approved by the Resolution of the Central Committee of the CPSU (b) and



K. Mayer. Project proposals for Moscow redevelopment and reconstruction. Competition. 1932. (Solid tone — center, grid — industry, dots — residential)

Council of People's Commissars on July 10, 1935, the General Plan, in all probability, was influenced by "personal guidance from Comrade Stalin", who it was constantly referred to in the literature, devoted his time to the adoption of the plan, according to L.M. Kaganovich, who directly supervised the reconstruction of Moscow. Kaganovich introduced the idea of expanding the city to the southwest and reshaping it into a more regular circular-looking Moscow. Another focus was to strengthen the role of the rivers: Yauza and Moskva River and turn them into active communication ways. Podmoskovye was treated solely as a service appendage of the capital. The Moscow Ring Road was designed to minimize the traffic in transit throughout the territory of the city. Implementation of the General Plan was calculated for 10 years ahead. Even without the intervention of the war, the completion of the task during the given period was doubtful. As a result, the General Plan of 1935 continued to operate with some adjustments up to the second half of 1950s.

“Technical” General Plan of 1957



Master Plan. 1935.

The latest version of Stalin's General Plan, approved in 1951 and prepared by D.N. Chechulin's team, was designed for 10 years, but after Khrushchev's architectural reform it became unsuitable for further use. Development of the General Plan was time consuming, while mass construction of housing was required to start up immediately. Therefore, in 1957 the Institute of the General Plan prepared a temporary "Technical" General Plan, which defined the basic parameters for development of the city, as long as the "real" General Plan was not ready. It also formulated development of the so-called "reserved" areas of Moscow. The biggest innovation of the post-war years was a decision to move the political center to the southwest, where later emerged such buildings of citywide importance as Luzhniki Stadium and the new Moscow State University complex.

The Feasibility of Moscow General Plan

By 1960, the feasibility study for the General Plan for the years 1961–1985 was ready. The Plan itself was adopted only in 1971; its potential (adjusted in 1966) during the 10 years period played its role. On August 18, 1960, the Moscow Ring Road became a boundary of the city which then suddenly expanded to 87, 500 hectares. As the number of residents lived in the associated localities added up, Moscow's population reached 6.13 million.

General Plan of 1971

In the approved General Plan of 1971, prepared under direction of the Chief Architect of Moscow M.V. Posokhin and designed to transform Moscow into a model Communist city, logic of concentric layout prevailed once again. It was a clearly noticeable resemblance to the plan of Kurt Mayer of 1931. The territory was divided into eight planning areas, each with its own center, production base and a full set of social infrastructure, including education, health, cultural facilities, retail, stadiums, parks, etc., so that residents could satisfy all their needs without leaving their area; Garden Ring in the center contained Housing Authority and cultural institutions of citywide and national importance. Increased distances were proposed to be covered by both subway and personal cars, which mass production was established in the country by early 1970. Proposed in the new plan there were sever-

The heritage theme sounds much more active in the plan of 1971 than in all the previous ones – it is not even called a reconstruction plan anymore but a development plan



General Plan Scheme. 1957.

al innovations, such as, for example, active development of underground space, especially in the central planning area, where it would preserve much of the historic environment. The heritage theme sounds much more active in the plan of 1971 than in all the previous ones - it is not even called a "reconstruction plan" anymore but a "development plan". At this time, the population of Moscow stabilized at 8 million.

City-planning Ideas of Perestroika

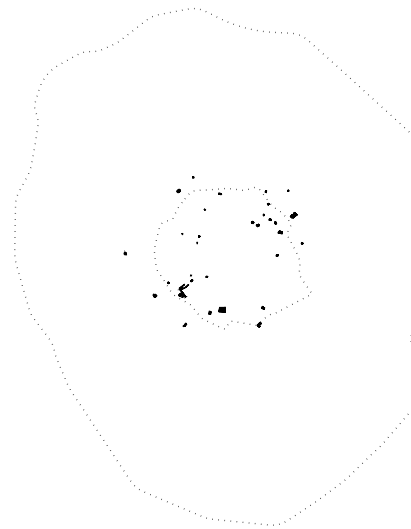
Announced by Mikhail Gorbachev in 1985, the policy of glasnost revealed the existence of serious problems in Moscow. In 1987, the Council of Ministers of the USSR adopted a resolution 'On the Development of the General Plan of Moscow and the Moscow Region' for the period up to 2010. Moscow was in crisis was searching for ways out of this crisis with broad public consultation. The center of Moscow located within Kamer-Kollezhsky Val was recognized as a monument of urban art. Detailed design of the center located within the Garden Ring, prioritizing natural regeneration, was isolated as a separate direction. Before the end of 1987 a competition for the new General Plan of Moscow was held and its results were released for public discussion. Economic collapse, and the following collapse of the Soviet Union made it difficult to conduct any kind of urban developmental politics. Work on the new General Plan, launched in 1989, dragged on for decades in response to changing political circumstances. The end result, the adopted 2010 General Plan of Moscow, was considered unfit immediately after its approval.

In the absence of clearly expressed administrative will during two post-Soviet decades, commerce became practically the only driving force of urban development. First, the city inherited from the Socialist era began to fill up with the objects of service infrastructure. Second, luxury apartment complexes, office buildings and shopping centers rose in the most attractive areas of the city. Third, inexhaustible demand for affordable housing kept supplying the city contractors with new orders so that urban construction companies soon became highly profitable. Politics of "manual control" in construction led to profound infrastructural imbalances, intractable transportation problems, the heritage crisis, such that altogether it triggered preconditions for the emergence of socially disadvantaged ghettos. As a result of these ill-conceived policies of privatization, large industrial zones were excluded from the city structure: even in those areas where production had fully stopped, redevelopment was complicated due to unresolved issues of ownership. Launched in 2012, the expansion of Moscow by the addition of the southwestern sector of the Moscow region became a recognition of the inability to resolve outstanding problems in any possible way except by extension. Such a choice could only lead to an unbounded multiplication of chaos.

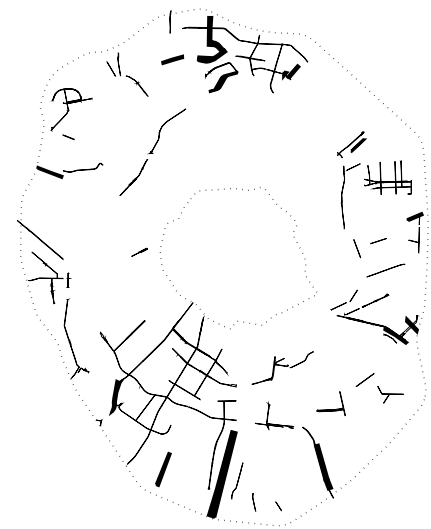


M.V. Posokhin. General Plan Scheme. 1971.

Planning Footprints



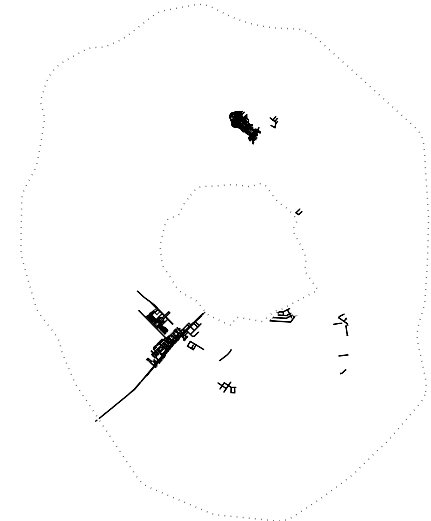
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2



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4

PLANS

1 Redevelopment scheme in 1919. I.V. Zholtovsky. Garden-City structure

2 New Moscow. A.V. Schusev, 1923. The industrial zone in the southeast, part of the railway in the east, garden settlements to the north.

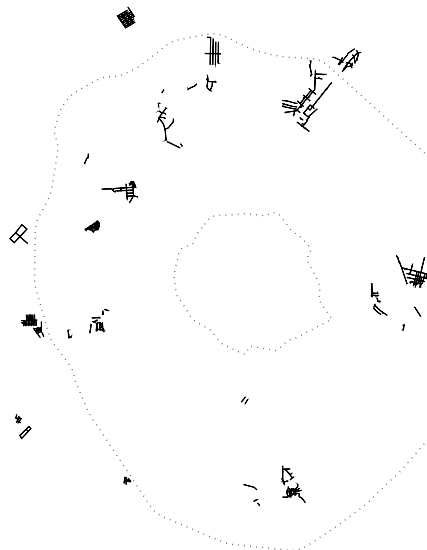
3 Big Moscow. S.S. Shestakov, 1926. Avant-garde projects of the 1920s. The avant-garde projects of the 1920s were placed according to the Shestakov plan.

4 Stalin Masterplan. S.E. Chernyshev, 1935. Khimki Reservoir, Moscow River Channels, the Road Transport Network, residential districts, eastern part of MKAD.

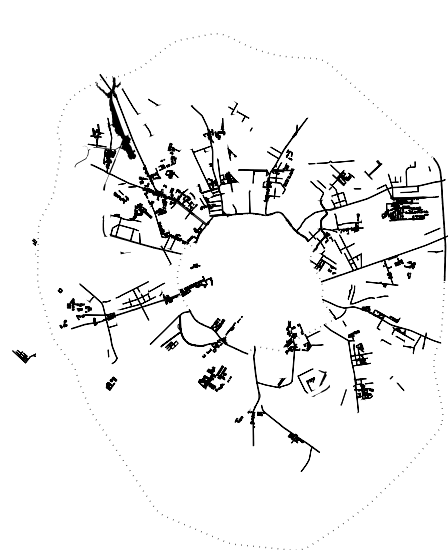
5 Large Projects. All-Soviet Exhibition (VSXV), 1939; main axis with the big sports arena and the main MSU building, Leninsky Prospekt, and the corrected part of the general plan of 1935 (according to the technical master plan of 1957 by D.N. Chechulin).

6 Master Plan. M.V. Posokhin, 1971. Road Transport Infrastructure Network, administrative and community centers in microrayon districts.

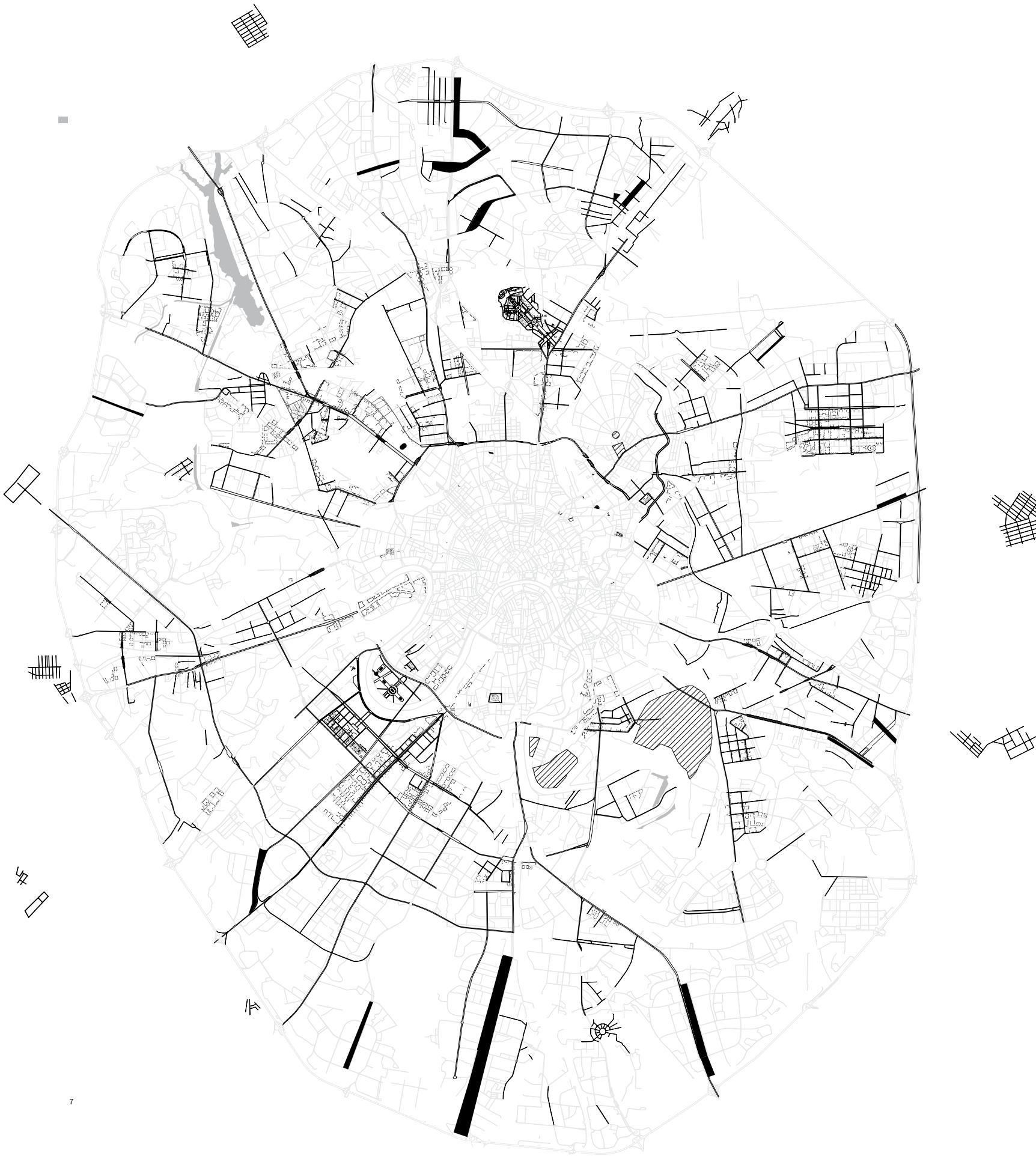
7 The realised portion of general plans have been established by mapping the approved master plans, satellite imagery, and historical maps of Moscow.



1



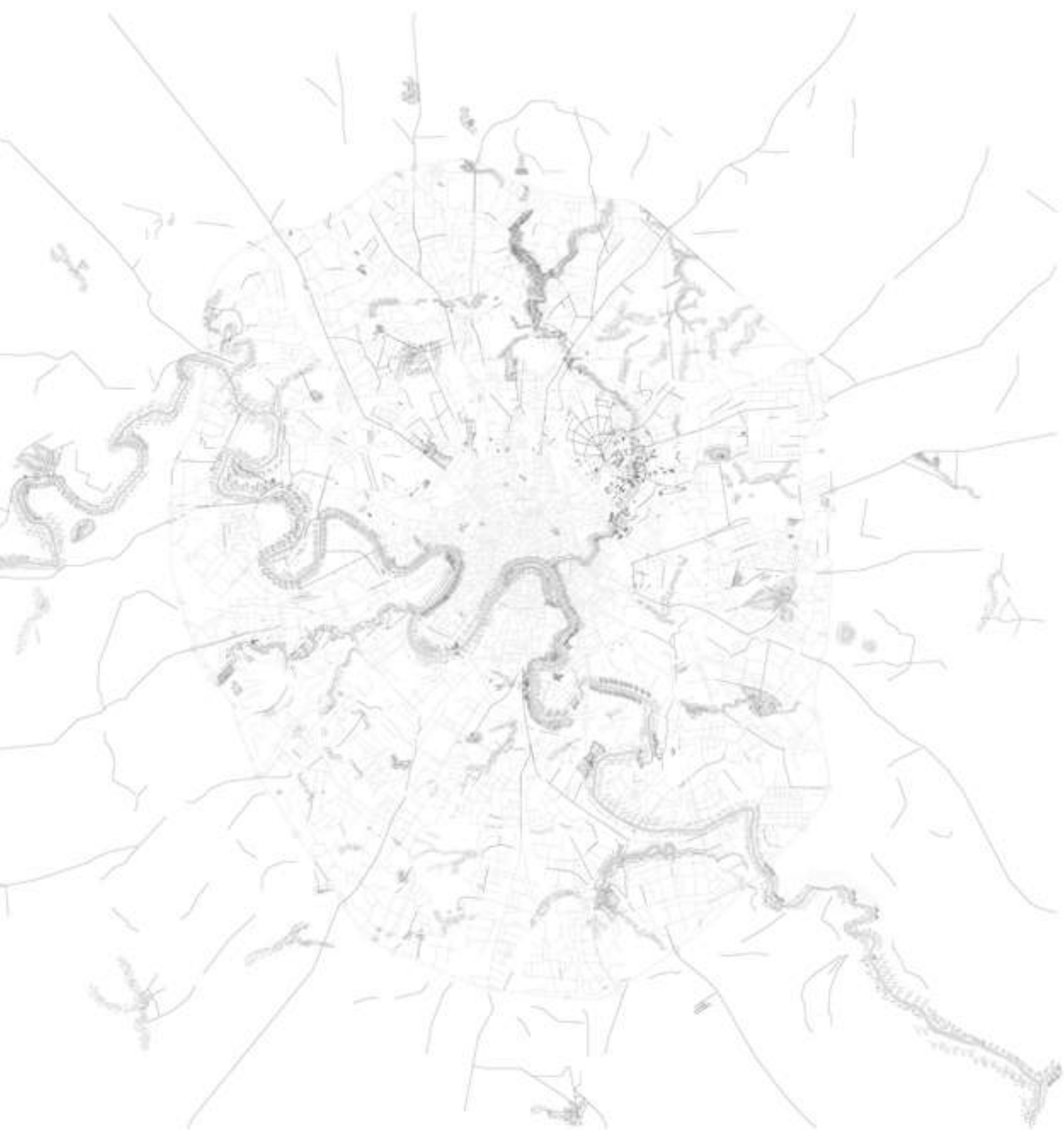
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Surviving Landscape

The research of the peripheral landscape revealed spatial and physical structures of the city that have remained since the 19th century. Among them, one can find a natural aquatorium, embracing rivers, streams, lakes, ponds, and since 1818, historical estate buildings and parks. When existing transport thoroughfares overlap with historical routes, the roads are considered traces of the historical landscape. The 24 of 34 Moscow Ring Road junctions are situated at sites of historical road tracks and settlements.

The following research was based on the topographic map of the Moscow circumference, made by officers of the quartermaster military unit, while the topographic map of Moscow was made by Schubert in 1848. the topographic map of the Moscow urban fringe was corrected by the officers of the General's headquartersf and by the ranking officials of the Military Topographical Depot in 1856.





Gravornova village- Graivornovskaya street



Marjina village - Kalibrovskaya street



Nikolskaya village- Olimpiyskie Prudi



Nikulina village - Landscape of Troparevsky



Semenovskaya village - 15th district, in the southwest



State-owned Izmailovo menagerie - Izmailovo Park



50 Years of October park



Kunzovo village - Pionerskaya



The History of a Place

The research of historical stages of territory development with a selected case of a village Semenovskoye(blocks 15, 15A, 15B in the South-West of Moscow).

Based on the maps and aerial photography of various years, one area was mapped during a period of 200 years.

Superimposed on the selected area is a master planning project, along the major highways of 1950s, and documented existing mappings of 1838, 1952, 1959, 1970, 1991 and 2013.

Despite the development of masterplans of the 1950s, which completely ignored the existing context, it is still visible, in which way the physical structures of village Semenovskoye and Kaluga road influenced the realization of the plans.

Block 15A, originally conceived as uniform, is presently dissected by the unnamed interior road. In fact, it is an imprint of an old Kaluga road.

In the block 15B in the South-West of Moscow Kaluga road was not preserved. The village itself did not survive, but the planning of the district follows the old plan of the village.

In the block 15 the various types of housing have been recorded for the past 50 years:

- Stalin-facade buildings,
- the first series of five-storey Khrushchev houses,
- 8–14-storey brick and panel block houses,
- infill development of the last decade on the site of the previous five-storey buildings.



The Ground. Superpark

ARCHITECTURE

Yury Grigoryan



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We are extending deep gratitude to Aleksander Gavrilov for his creative support, expertise and passion, and to HSE professor Alexander Dolgin for his academic support and consultancy

S P A C E D

CULTURE

Modernist Urban Culture Project — Grigory Revzin, Rozaliya Tarnovetskaya,
Margarita Chubukova

Mapping Moscow's Periphery. Integrated Analysis of Social and Urban Data —
A.P. Gavrilov, Rozaliya Tarnovetskaya

Berlin: The Eccentric City — Michael Schindhelm

The New Plantation Owners. Meta-Cities in the State of Moscow — Grigory Revzin,
Rozaliya Tarnovetskaya, Margarita Chubukova

Modernist Urban Culture Project

**Grigory Revzin
Rozaliya Tarnovetskaya
Margarita Chubukova**

One of the main special features of Moscow's periphery is the fact that it is the Soviet modernist project of an industrial city put into practice. In addition to economic, urban, architectural and social aspects, that project had a cultural strategy of its own based on two principles:

1: Equality. As a matter of principle a key objective of culture in general is to produce hierarchies, but the modernist project, following in the footsteps of the avant-garde project, was after a diametrically opposite objective of achieving the maximum possible equality between production and consumption of culture. In the case of Moscow, two different ideas of equality came together. The functional idea had to do with the industrial (Fordist) city demand for a workforce with similar characteristics. For assembly-belt production all workers should be alike in terms of their values, motivation and life patterns, including cultural consumption. The other idea was specifically socialist and aimed at ensuring civil equality and honouring the citizen's right to equal access to cultural values.

2: Ideology. Culture was seen as a means of Communist inculcation and all cultural institutions had among their functions promotion of the values of the Soviet State and Communist ideology.

Those principles found practical expression in the development of a specific cultural infrastructure in modernist peripheral districts depending on the number of their residents and in accordance with state standards. The following cultural institutions were to be available (such territorial development standards are in force today):

- Library (2.5 per 1,000 residents)
- Museum (1 per 25,000 residents)
- Picture Gallery or exhibition hall (1 per 150,000 residents)
- Theatre (1 seat per 1,000 residents)
- Cinemas (3 seats per 1,000 residents)
- Concert halls (3 seats per 1,000 residents)
- Art schools for children (1 seat per 5 students in the 1st–8th grades)

1 Russian Federation Government Directive No. 1767-r dated 23 November 2009

2 Regional Urban Development Standards do.gendocs.ru/docs/index-50487.html?page=57

3 www.mos.ru/press-center/infographics/results_2011/culture/

Needless to say, such approach to cultural policy was never implemented 100 percent, all the more so since territorial and departmental supply principles sometimes clashed: the House of Culture (community centre) of an enterprise could substitute for a theatre, cinema-house and concert hall. In practice a territory was thought to be well-appointed if the standard of half a square metre of “culture” per resident had been complied with. Equal accessibility of culture benefits was the main principle, therefore the ideal was to create a balanced cultural network. That ideal found expression in TV and radio broadcasting (equal amount of culture per flat) that was also standardised (one wired-radio outlet with two aired programmes and at least three televised programmes per flat). However, culture institutions cannot be distributed this way (hence, among other things, the absolutely dominant part played by the TV in the structure of cultural consumption). Nor is it possible to spread evenly the other cultural institutions. Yet, the important ideal here is to ensure equal distribution within walking distance (approximately within 3 km, or 30 minutes’ walk).

In urbanist history that was perhaps the most consistent implementation of a large-scale utopian project, and we continue to exist within its infrastructure. Today, Moscow has a gigantic cultural network of 470 libraries, 25 exhibition halls, 245 Houses of Culture and clubs, 82 concert venues, 309 museums, over 200 art schools for children, 242 theatres and 99 recreation parks financed from the state budget and a 2012 city cultural budget of 12.7 billion rubles. Under the circumstances the question of culture on the city periphery is somewhat peculiar as far as Moscow is concerned. It is a question of a utopia as inheritance.

It would be absurd to claim that this gigantic cultural network has no relevance to culture on the city periphery. Surveys show that parks continue to be chief assets of peripheral districts in the eyes of their residents, and art schools for children (above all dance and music schools) are in great demand. The situation with peripheral theatres, museums and libraries is not so cheerful, but they are still around. Although in the 1990s, some Houses of Culture and exhibition halls were transformed into shopping centres while some cinema-houses and museums were closed, the entire network is on the whole functioning and, among other things, is responsible for the high living standards of Moscow’s periphery compared with megacities in the developing countries.

On the other hand, it is quite obvious that culture on the city’s periphery is not limited to this infrastructure but, in a sense, depends little on it. The cultural reforms undertaken by the Moscow Government over the past few years aim primarily to boost demand for parks, libraries, theatres and museums among the Muscovites, and much has already been accomplished in this respect. The question itself attests to the fact that at present there



Photo: Y. Palmin

From the economic point of view the city is progressing from the industrial to the postindustrial one, and from the cultural – from a modern city to the postmodernist city

is little connection between the life of the residents and the cultural infrastructure, but they need to be connected. The city's culture and cultural infrastructure are two different things. The question arises of the methods of studying the culture of Moscow's periphery from an urbanist point of view. In the present analysis we proceed from two of the numerous interpretations of culture.

First, from an anthropological point of view, culture is an inherited system of values, norms and civilisation standards on the one hand, and their ordinance rules on the other. This anthropological understanding of culture appeared within the framework of ethnography initially used in the description of primitive cultures, was then applied to the study of the history of European culture within the framework of the Annales School, and later to the study of modern professional and territorial communities. In accordance with this interpretation, the culture of Moscow's periphery is a system of all civilisation institutions functioning on its territory, not only cultural in the narrow sense of the word, but also political, economic, social and in fact everything that is associated with the life of a socium.

Culture, in the sense of an object of municipal administration is something far narrower, namely, a network of cultural establishments on the given territory. They are, beyond doubt, related to culture in the anthropological sense and in a way grew out of it at some point in the past. The modernist project of social engineering of culture at the moment of its inception (the late 1950s to the early 1960s) was a radical form of rationalising culture in the anthropological sense of the word, with cultural skills and traditions categorised by type, some of them discarded and others embodied in separate institutions (libraries, community centres, cinema-houses and schools). Those institutions were organised to form territorial networks and then functioned in keeping with their own logic.

To a certain extent those territorial cultural networks registered the anthropological characteristics of culture of the Soviet society of the 1960s (of course, only some of them). Society keeps changing, meanwhile the logic of the development of any institution is that it strives hard to survive and, to one extent or another, succeeds. The gap between institutions and social needs, between culture in the anthropological sense of the world and culture as a network of corresponding establishments is unavoidable and depends on the extent of changes in the social system. In the case of Moscow, these changes are dramatic.

Summing up the historical results, Viacheslav Glazychev aptly points out: "The old system no longer suits anybody because it was created for the time of passive enlightenment that presupposed that people ought to come out and listen to music, visit the library and borrow a book or go to the cinema

4 Viacheslav Glazychev. Culture in the City — the City in Culture.
http://www.glazychev.ru/courses/2003-10-16_lecture_cultura_v_gorode.htm

and watch a film. And that exhausted the idea of culture. That people, as a matter of fact, could also create culture was beyond the framework of that model.”⁴

We can formulate it even more bluntly. The system of equitable networks of similar residential units according to the principle of equal supply is obsolete in more than one sense.

On one side, the communist ideal of social equality is a thing of the past as the state is no longer concerned with maintaining equality by purging proprietary or any other exclusivity. The city budget has enormous funds to support the socially disadvantaged (migrants excluded), and the city strives to prevent them from sinking below a certain standard of living. At the same time, the Moscow of today honours the right to superiority as secured in the 15-fold and even wider gap in incomes between the rich and the poor, rather than the right to equality.

5 From Chicago to LA: Making Sense of Urban Theory. Ed. M.J. Dear. Thousand Oaks; Sage, 2002.

On the other side, the industrial city has given way to the postindustrial one, and this is a fact of world rather than merely Russian history. We are living in the era of a great shift in the cultural paradigm that transforms culture in the anthropological sense of the word. According at least to the Los Angeles School of Urbanism⁵, the main characteristic of postindustrial city culture is its striving to promote diversity and expand to the utmost extent the range of situations, environment impressions, patterns of behaviour and communities that the city is capable of providing. From the economic point of view the city is progressing from the industrial to the postindustrial one, and from the cultural point of view from a modern city (from the point of view of philosophy from the city of the Enlightenment period to the 1960s) to the postmodernist city. We proceed from the fact that the modern city was based on embodying the ideal of enlightenment, progress and (industrial and social) revolution. The city offered its residents a clear scenario of how to organise life, and all the possible strategies of behaviour were in one way or another connected with this scenario. For all the profound differences between the architectural ensembles of the Enlightenment and the urbanism of socialist modernism of the 1960s, the idea of the city as the embodiment of a certain concept and an instrument of raising an urbanite is quite alive in modernist urbanism, and Glazychev’s recollection of the Enlightenment ideas is quite pertinent here.⁶ The way we see it, the postmodernist city is not that of embodiment but that of exchange. To its residents it offers not a scenario of how to become a somebody, but above all a chance to avoid regimentation and certainty and to try on different masks.

6 From Chicago to LA: Making Sense of Urban Theory. Ed. M.J. Dear. Thousand Oaks; Sage, 2002.

For the city of embodiment, the human lifespan is a resource to be spent on becoming a useful member of society as quickly as possible, and following

Two generations have been living within this network and making it habitable. The latter process is in fact a manifestation of culture in the anthropological sense of the word, and we can see the logic of this process



Photo: Y. Palmin

that, to serve the public weal to the utmost extent. For the city of exchange, the human lifespan is the wherewithal to be spent on anything, or better still not to be spent on something in order to be able to spend it on whatever: the same as in any other of economic sphere of consumption society; the ability to acquire something is far more important than the acquisition itself. For the city of embodiment, city space is part of the machine to produce the public ideal, and in keeping with the modern idea of efficient division of labour, quality space is that which is assigned a certain function of that machine (production, administration, distribution or reproduction of workforce). For the city of exchange, city space is a shop where different situations, sociums and social roles that are chosen by Man change throughout his lifetime, and therefore, in accordance with the principle of commerce, the larger the range of products, the bigger consumer interest. Under the circumstances, the ideal of an equitable network translated into reality in Moscow's periphery is extremely inefficient. Developing a residential neighbourhood with 0.05 m² of circus space per resident or another with a puppet theatre of the same ratio kills both the circus and the theatre. In Europe, a model postmodernist city is Berlin, which was largely renovated in the 1990s. The inexpensive Kreuzberg of the young and the affluent bourgeois Dahlem, the now trendy Soviet Mitte and the Americanised Adlershof are in fact different cities with their own subcultures. To one extent or another, the same applies to every one of the 21 boroughs of Berlin. Even more so, this is true of Los Angeles, where the combination of Hollywood, closed military facilities, the main IT centre, university campuses, Afro-American neighbourhoods with their street gangs and quality music, hotel districts and beaches make it possible to speak of this city as a model of American culture as a whole⁷ — it has everything America has, with the exception of perhaps boundless cornfields. Of course, such differences and diversity are to be found in all historical cities of Europe, including Rome, London and Paris. They have taken ages to form and, although they can gradually disappear under the impact of global factors (compare the gradual obliteration of distinctions between parts of Venice under the impact of global tourism), they nevertheless continue to determine the image of the old capitals. Modern Asian centres, too, obviously tend to follow the same logic — Hong Kong with its Kowloon commercial, banking and government areas is also a combination of essentially different cities. The same can be said of Singapore.

However, if we ask today's Muscovites or city visitors in what way Bibirevo differs from Chertanovo, Perovo from Belyayevo and so on, they won't be very sure about their answers. From the point of view of cultural reflection in city folklore, the cinema, literature, etc. the whole of Moscow's periphery is but a single district. The only place in Moscow that meets the postmodernist city qualifications is its centre, which perhaps accounts for its success in the past two decades. Here the differences between Lubianka and Ostozhenka, Zaryadie and Zamoskvorechie are quite pronounced and understandable.

Perhaps the most promising line for Moscow's strategy in the coming decade would be to have Moscow periphery districts branded so that within a clearly perceived period of time, one would see the difference between Matveevskoye and Izmailovo as clearly as between Berlin-Wedding and Tempelhof or between the Havering and Kensington boroughs of London. However, so far we have no idea of what to rely on in such branding or what to

proceed from, to say nothing of who would be the potential beneficiaries of such cultural policy (excepting the citizens themselves, but such cultural policy is impossible in public weal economy).

8 Lewis Mumford. *The Myth of the Machine* (1967–1970)

In his time, Lewis Mumford defined the city as the machine to produce and reproduce culture.⁸ According to Mumford, it was crucial that the multiple functions overlap in the city hub, for this machine to operate successfully, making it multifunctional. Modern urbanism is guided by precisely the same principles — the city is functioning efficiently inasmuch as it is capable of combining within itself multifarious flows and functions generating them, and this is particularly true of culture. The idea of the equitable network of cultural consumption is diametrically opposite to this. Conceived more than half a century ago, that network had been largely translated into life by the late 1970s. Two generations of people have been living within this network and making it habitable. The latter process is in fact a manifestation of culture in the anthropological sense of the word, and we can see the logic of this process. If Mumford was right, it is logical to surmise that the city itself will begin to reproduce its own logic by singling out places with overlapping functions and shaping its own centre.

We have based our empirical study on that very principle, which originally underpinned the distribution of city services in the modernist network of social engineering — accessibility of functions within walking distance — and analysed the entire territory of Moscow from the point of view of what functions are accessible to what extent at every particular place. The result is a functional isometric map that, we believe, shows how peripheral space was made habitable.

It is easy to see that it has been made habitable rather unevenly and, looking ahead, we can say that if the centre is understood as the point of functions overlap, the city structure obviously tends to breed subcentres — places on the periphery that in the number of overlapping functions on the same territory match what we have in the historical centre of Moscow. Of course, they can hardly be called actual city centres because this was conveyed neither in their urban development nor in terms of architecture. We can designate them as proto-centres that have naturally emerged in an environment conceived according to an entirely different logic.

Why Do Such Proto-centres Take Shape?

9 A. Dolgin. *Ekonomika simvolicheskogo obmena* (Economics of Symbolical Exchange). Moscow, 2005

Alexander Dolgin offered one of the wittiest explanations of the logic of that process.⁹ He wondered why the bulk of deluxe boutiques along Moscow's Kutuzovsky Prospekt are on the left side leading into Moscow, while economy class shopping centres are on the right side along which traffic goes out of Moscow. The paradoxical answer is that it is for no reason at all. The first boutique just happened to open on the left side, then another and

still another followed suit and precisely that side of the avenue gradually emerged as more expensive from the commercial point of view. In our case (we have analysed more than a hundred functions) shops followed flows to job-generating places; ATMs, cafes, restaurants and cinema-halls stuck to shops; beauty and massage salons joined the whole lot, with functions snowballing, and at times even the loss of the initial function did not put an end to the centre because the totality of functions generated a new flow. What matters to us the most is the fact that this process cannot be controlled directly: it depends on a far too large and unpredictable pattern of behaviour dictated by the logic of business, the city economics and a mass of other factors. That is why this process of the emergence of proto-centres can in a sense be considered “natural” (which of course does not mean that it cannot be influenced).

On the other hand, as a natural process, it still complies with certain laws of natural city development. The lines of Moscow’s functional isometry do not correspond to the microrayon layouts, the ideas of the architects of different periods about creating representative spaces or the letter of the city master plans. Centres have emerged in the area of the Akademicheskaya or Profsoyuznaya Metro stations (see the chart) rather than in the University area, for which they had been designed.¹⁰

However, they are in conformity with the original logic of natural city development, which Albert Gutnov in his time formulated as follows in the city environment theory: “Put together, the various attempts to understand the city complexity led us to discern 1) The ‘road,’ paved by everyone on one’s own and by all of us together through the thick of the city and 2) The ‘landmark,’ always enabling detection of the point in the city system of co-ordinates under our feet. We saw the ‘district,’ the borders of which do not necessarily coincide with the *de jure* borders of the district or microrayon, yet it obviously had a centre of its own. We rethought the notion of the border on both sides of which the urban environment was tangibly transforming. Once again we realized that the city has 3) ‘Junctions’ — hubs of human activity with their own growth energy; all of a sudden a transport station is surrounded first by a shopping centre, to which a culture-and-entertainment centre is then added, and it all necessarily doesn’t take place where it was intended.”

In this terminology the “proto-centres” singled out by us should be called “hubs.” It seems to us that these hubs appear at the crossing of two logics. One is the logic of roads, including both the Metro lines and stations, on the one hand, and, to a larger extent, motorways. The other is the logic of places. If we overlay the functional isometric map on the 1939 map of Moscow and its environs showing the villages now within the Moscow city boundaries, we will see that the development of new centres both depends on and influences the earlier settlement there. New centres often emerge as a counterbalance to village centres while early Soviet urban planning efforts find themselves being carried on. (For example, the present-day proto-centre of the Strogino district has taken shape on a wasteland south of the village of Strogino while the area of the old settlement is not so much in demand today).

As a matter of fact, the proto-centres on Moscow’s periphery are centres of hundreds of thousands-strong settlements, that is to say, they are unique formations, and before drawing any conclusions analysis methods should be described in detail and every centre should be considered separately.

10 A.E. Gutnov, V.L. Glazychev. *Mir arkitektury: Litso goroda* (The World of Architecture: the Face of the City). Moscow, 1990



Photo: Y. Palmin

An Integrated Analysis of Social and Urban Data

**Alexander Gavrilov
Rozaliya Tarnovetskaya**

The life of modern cities is a combination of multiple layers, both material and social. Material layers include all the physical objects surrounding people in the city: visible and invisible (infrastructure), public (public goods) and private. This urban “hardware” determines people's behavior. Its features affect the way social relations are established and institutions formed — it is “software” of sorts. During the Soviet era, all the possible variations of social interaction were produced and strictly controlled by the State. Nowadays the function of creating urban “hardware” is split between the government and the business community. The “software,” meanwhile, is given the freedom to decide on its own development. The government only retains the control over the key institutions that govern the society (education, medicine, museums, theaters, universities, etc.).

As a result, the provision of various services to the population has become a business domain. Small institutions, such as shops, banks, beauty salons and other establishments began to randomly fill the city streets, thus transforming industrial urban “software” into the post-industrial. It is rather difficult to understand how this “software” is formed on the scale of the Moscow megapolis.

The integrated analysis of social and urban data makes it possible to obtain a comprehensive picture of area development on the city scale. Here we will study the first belt districts of the Moscow periphery, located between the Third Ring Road and the Moscow Ring Road (MKAD). The potential of the area is determined by the logic of the availability of various services (residential, cultural, medical, financial, etc.) within walking distance (2 km). This method allows us to calculate the level of cultural complexity of the urban environment on the basis of real data.

The study of an area using the integrated analysis of social and urban data consists of the following steps:

- The search for data about the objects of urban services (cafés, theaters, shopping centers, etc.) with geo-references;
- The preparation of a cartographic basis for the calculation;
- The calculation of potential availability of various services in the area and its visualization using thematic “heat” maps;
- The application of the principal components method for the composition of thematic “heat” images;
- The interpretation of the principal components and their visualization;
- The identification of areas with homogeneous cultural development, and the clustering of such areas;
- Analysis of the images obtained.

Data Search

In the context of the integrated analysis of social and urban data, it is important to understand that all information on the urban space is interdependent, that is, the data correlate with each other. This means that information is as redundant as speech. Skipping parts of it will not affect the overview of the area. Moreover, information can be divided into observable and unobservable. Even if there is no explicit carrier of a certain feature (e.g. culture), the feature may still be revealed by the analysis. The result obtained cannot always be interpreted; generally, the interpretation largely depends on the expert's skills and qualifications.

A comprehensive analysis of such a large area of Moscow's periphery requires data about the objects of infrastructure (metro stations, schools, medical facilities), culture (museums, theaters, libraries, parks, historical sites, etc.), consumer services (ATMs, hair salons, travel agencies, dress-makers, cafés, restaurants), entertainment (night clubs, cinemas, bars), and education (universities, further education centers, research organizations) — approximately 94 types of municipal services and 50,968 objects. The data about the objects have geographic references; their precise location is known. The main sources of such information are open data portals: the Moscow Government Open Data portal (data.mos.ru), OpenStreetMap (openstreetmap.ru), Wikimapia (wikimapia.org), the master plan for the development of Moscow (gpinfo.mka.mos.ru/kniga_2). The information was partially collected manually. Specific types of data were selected using the logic of evaluation of the city's cultural potential. The effect of certain object types was considered together, as they are rarely widespread and have a similar impact on the urban environment.

The list of object types and their number are displayed in the graph.

Preparation of a Cartographic Basis For the Calculations

To calculate the “heat” potential, a framework covering the entire territory of the city is required to store the data. Therefore, the next phase of the research is the preparation of a cartographic basis for the calculation of “heat” potentials of object impact on the urban environment. For this purpose, the entire city was covered with a network of 62,400 points set at a distance of 100 meters from one another. Based on this framework, a matrix (62400*94) was created, where each point corresponds to a separate line. The entire city was covered with a network of 62,400 points set at a distance of 100 meters from one another. The matrix contains information about the way urban services affect the key points covering the researched area.

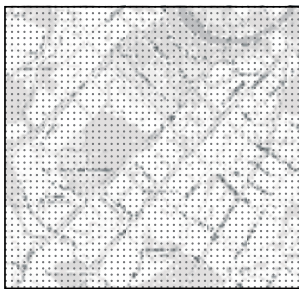


Fig 1.
Reference points on the map - the cartographic base calculations.

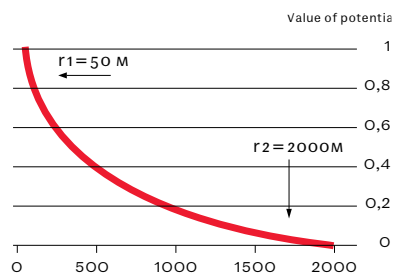


Fig. 2 Dependence between the «heat» potential of the city services and remoteness from the reference points on the map

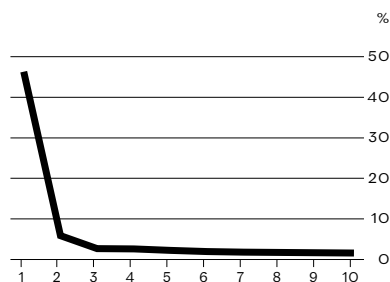


Fig. 3 Pdistribution of variance between the main components

Calculation of Potential Availability of Various Services in the Area and its Visualization Using Heat Maps

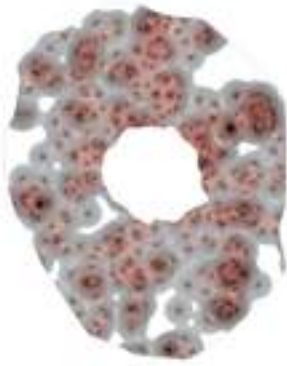
To calculate the impact of objects (restaurants, movie theaters, etc.) on the points of urban space, the principle of heat transfer over a surface is used, just as in physics. It is described by the fundamental solution of the Laplace equation for the two-dimensional case and is calculated as a logarithmic dependence of the potential impact (in standard units) of the distance (in meters). The research examines the pedestrian access to the facilities, so our calculation is limited to a distance of 2 km; if the distance exceeds this limit, we suppose that the potential impact is zero. Also, if the distance between the object and the reference point is less than 50 m, the value of the potential is maximal, in view of the scale of the research and the easiness of covering this distance on foot.

The distance between the object and a certain kind of service (restaurant, theater, ATM, etc.) affects the potential of each point in space, as shown in the diagram.

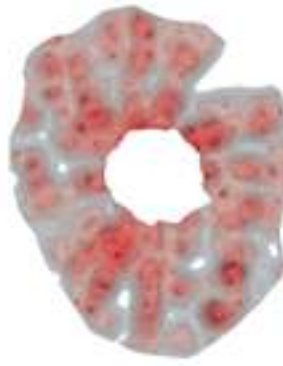
If several objects of the same type, for example, cafés, are located within 2 km of a reference point, the impact potential in the reference point is calculated as the sum of impact potentials of each café on this point. Calculation results are also visualized in the form of heat models for each service type of the urban environment. The most remarkable examples of the resulting heat maps are shown below.

Application of the Principal Components Method For the Composition of Thematic “Heat” Images

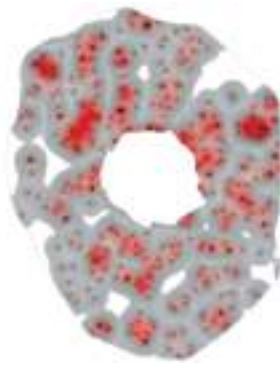
The heat models allowed us to identify the concentrations of impact potentials for various types of urban objects. The next research phase focuses on discovering and analyzing the overlap of all the impact potentials (for 94 object types) in the urban space. One of the features of human perception is the ability to assess the situation using a small number of parameters (<7).



Saunas and Spas



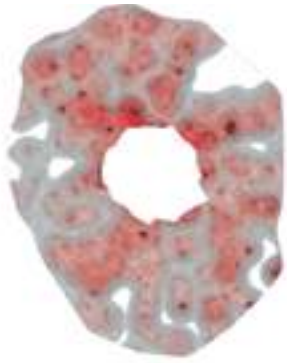
ATM's



Libraries



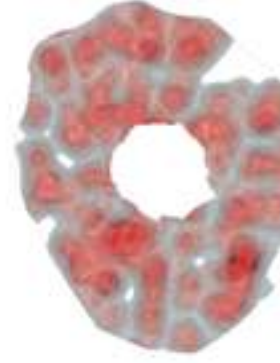
Houses of Culture



Cafes



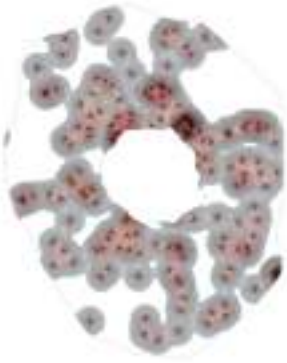
Cemeteries



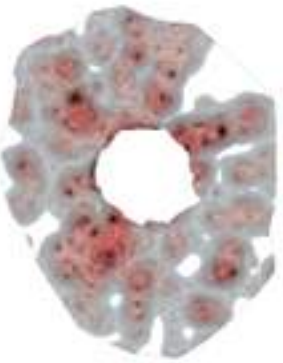
Cosmetology Centers



Nightclubs



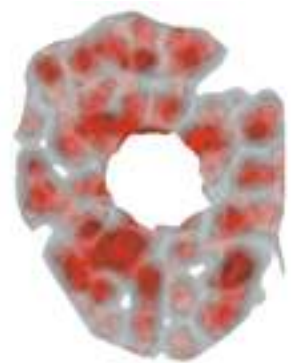
Public Toilets



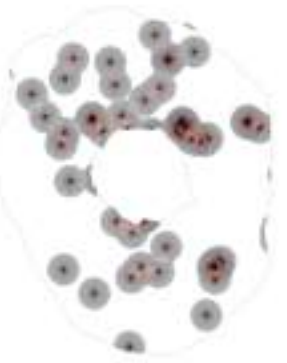
Restaurants



Stomatology



Nail Salons



Tattoo Salons



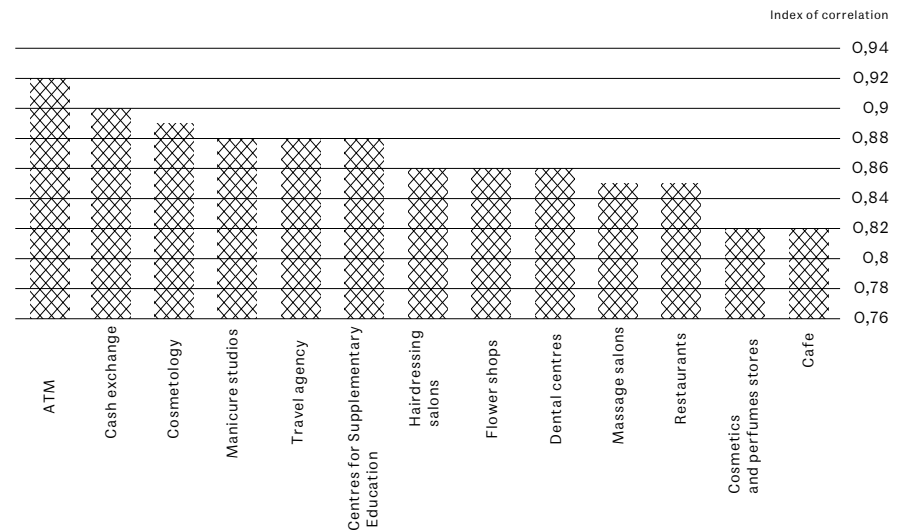
Theaters



Supplementary Education Centers

Churches, Mosques
and Synagogues

Fig. 5. Objects, highly correlating with the first main component



There may be several hundred factors characterizing the area, some of them are discrete, and some continuous. The assessment of their importance for the area description upon the analysis of each specific problem is not always a simple task. A universal approach is required for the analysis of large amounts of data.

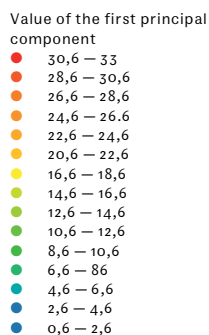
One such approach is the principal component analysis (PCA). It is one of the most popular ways of reducing the dimensionality of the data, with the least amount of information lost. This method is applied in various fields of science, such as data compression and pattern recognition. The calculation of principal components comes down to computing the covariance matrix of original data.

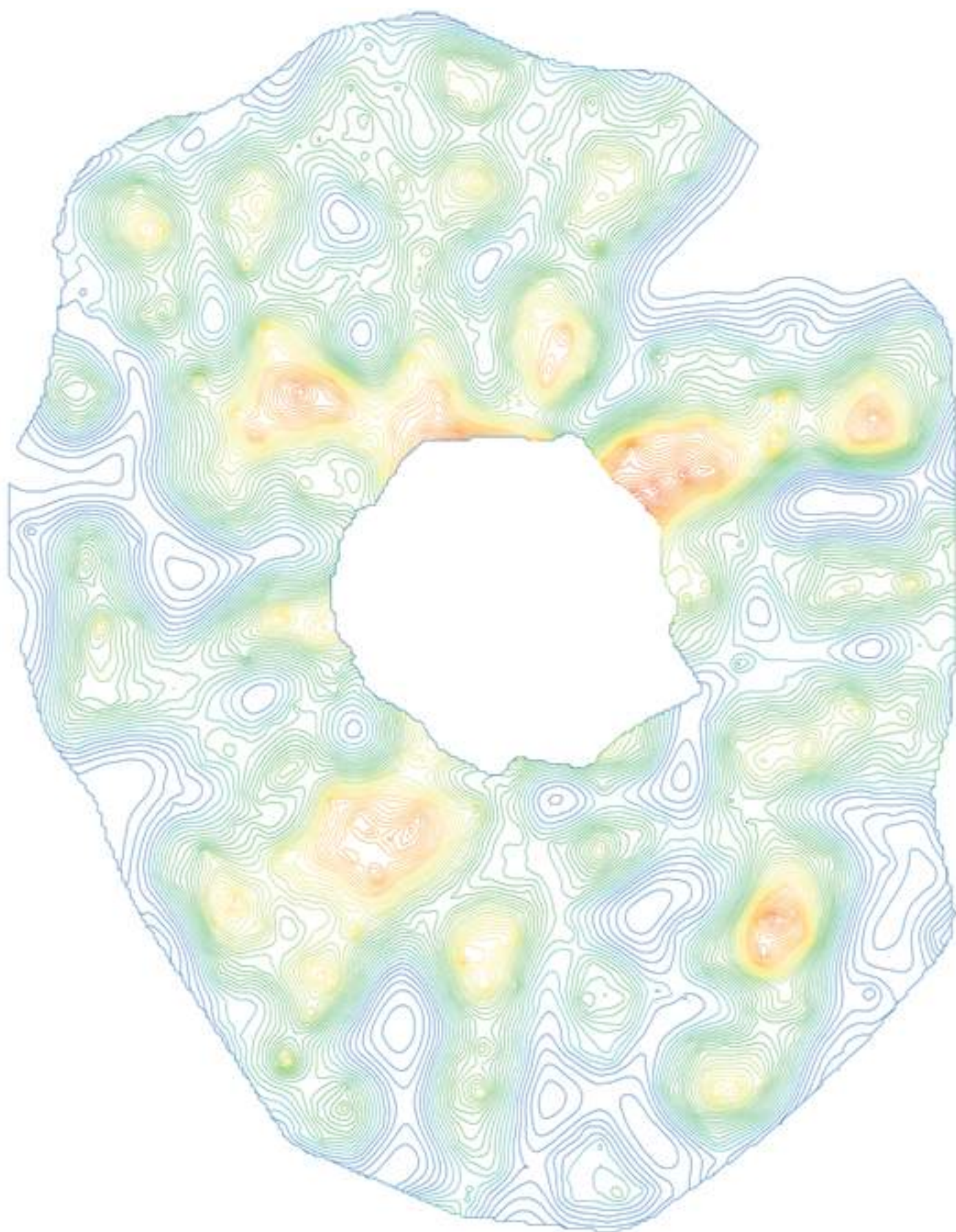
The principal component method analyzes the parameter variability (in this case, the influence of a particular object type) in the analyzed area and, based on the analysis results, discovers the most variable linear form of parameters. Generally speaking, we could say we are looking for the best rates for summarizing the images; that is, the ones that will hold as much information as possible. It is important to realize that if a factor varies little over the area, it hardly influences the results. There may be several principal components, but not more than the number of initial factors. They are not related to one another. The first principal component is the most informative. It can accumulate over 50% of the information. The principal component analysis allows you to work with an unlimited amount of information about the area, both in terms of composition and quantity. The application of this method allows us to discuss the integral analysis of the area.

The calculation results, visualized in the “heat” maps, are arranged into a matrix with the values of the potentials by object type for each reference point. It is the basis for the calculation of the mathematical model using the principal components analysis.

Upon the calculation of the model, the values of the principal components for each network reference point are obtained. The graph shows the distribution of variance (information) between the principal components. Evidently, the first principal component is the most informative with over 46% of the data, the second one holds over 6%, and so on.

Fig. 6
Distribution map of the first principal component in the periphery of Moscow





Interpretation of the Principal Components and Their Visualization

The output information of the model calculation is a table of values of correlation coefficients by service object type in reference to principal components. These correlation coefficients enable the interpretation of meanings of the principal components through indicators that vary greatly across the analyzed territory; that is, they are highly correlated with the principal components and have similar configurations of heat models on the map. For example, a map of the first principal component distribution (Fig. 6) and a “heat” ATM map. (Fig. 4) The visualization of calculation results based on the principal components method uses functional concentration isolines.

Based on the graph, the first principal component can be interpreted as a composite indicator combining information on the distribution of financial institutions (in the form of ATMs — the source of money — and currency exchange offices), objects of the beauty industry (cosmetology, nail studios, hairdressers, massage parlors, dentistry); food services (in the form of cafés and restaurants with the exception of fast food, which indicates a different nature of their distribution), and other types of service objects (travel agencies, centers of further education, driving schools, a variety of courses, and flower shops) within a given area. The first principal component contains less information on other types of objects, which means that they had less effect on its final value. The value of the second principal component can be understood with the help of the following diagram:

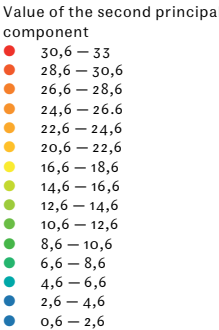
We could say that the second principal component contains the data related to the beauty industry, schools and pre-school education. It also includes dental centers, flower shops, and laundries. Based on a brief analysis of correlation coefficients, it is safe to assume that there is an indirect relation between the location of flower shops and dental centers in urban areas. Other combinations of urban object types are also possible.

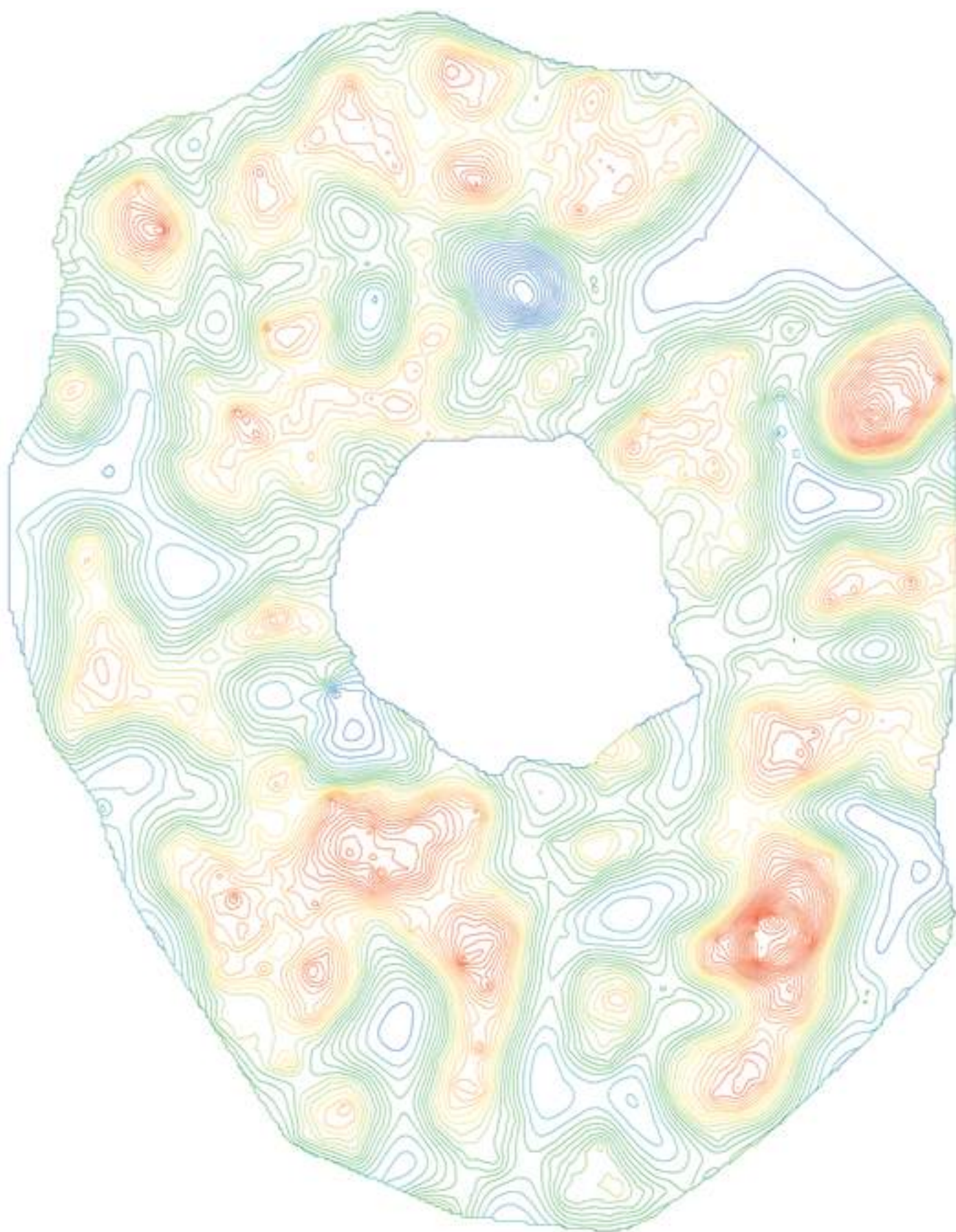
Identification of Areas with Homogeneous Cultural Development

The Clustering of Such Areas

The next phase is dedicated to the search of homogeneous zones in terms of the quality of the urban environment. It is based on the analysis of the values of the principal components for each reference point. For this purpose, clustering is used: it is a process of area grouping based on similar combinations of features. Several different methods can be applied. The present research adopts the K-means method, which is characterized by “growing” the cluster, i.e. attaching new objects to the points of growth. The result is a set of homogeneous areas with similar parameters used in the analysis. This facilitates a comprehensive understanding of the heterogeneity of urban areas. Each homogeneous area undergoes its own processes and forms a certain level of urban culture. The calculation of the average value of the first principal component for each cluster allows sorting them according to the degree of their value for the city. The calculation results are visualized on the map of area clustering in Moscow's periphery.

Fig. 8
Distribution map of
the second principal
component in
the periphery of
Moscow





Analysis of the Images Obtained

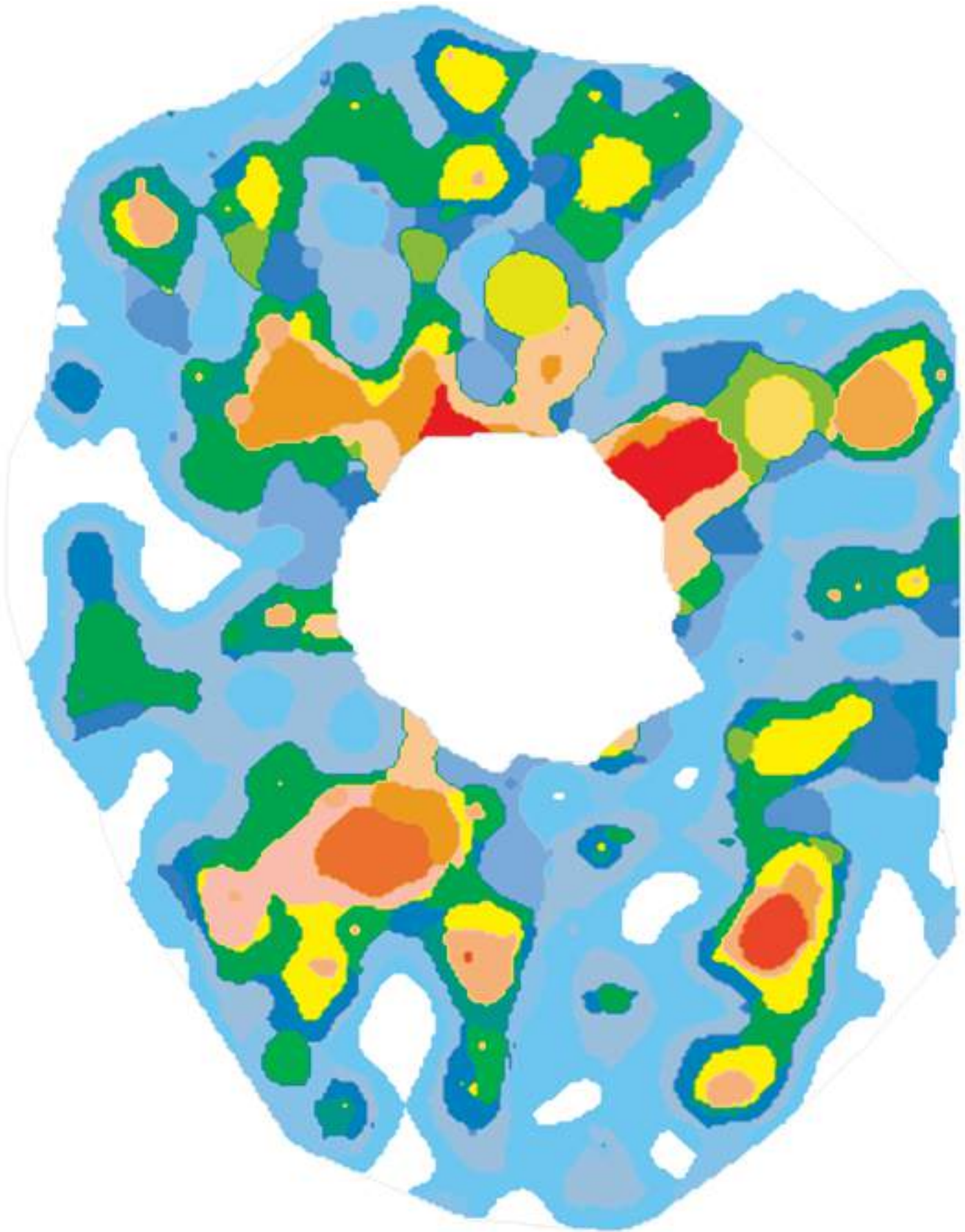
When looking at a satellite image of an area, you can define its general character, but you cannot reveal the fine details or recognize the features of the environment. Urban “hardware” can only be assessed from within the urban environment.

It is currently virtually impossible to collect complete information on the city's infrastructure. However, some of this information can be obtained by analyzing the data on city objects of a different nature. It facilitates a clear understanding of the level of urban area development. For example, the presence of a large number of services of a particular profile in a certain area of the city (tanning salons, veterinary clinics, nail studios, funeral services, art galleries, etc.) may suggest that this space could be attributed to the homogeneous territory of a particular class.

Area clustering helps identify homogeneous urban spaces. The method used allowed us to identify areas with a high concentration of active urban life. These were, primarily, areas adjacent to the Third Ring Road (the districts of Sokolniki, the Savyolovski Station and Maryina Roshcha). Other urban areas that have incorporated a high level of urban development in performing as independent centers (formed by the influence of internal factors) include Izmaylovo, Sokol, Maryino, and the territory on the border between the districts of Akademicheskaya-Lomonosovsky and Cheryomushki-Obruchevsky. Within the context of the “Archeology of the Periphery” research, these areas are of utmost interest, as they were built during the era of the industrial urban growth.

Fig. 9
Cluster map of
territories in
the periphery of
Moscow





Berlin: The Eccentric City

Michael Schindhelm

Berlin is no megacity like Moscow. Berlin is also no pulsing global metropolis like New York or London. Neither does it have the architectural charms that Rome or Paris has to offer. The city doesn't profit from primacy of geography or climate like Barcelona. Even within Germany, Berlin's quality of life can't be compared to that of Frankfurt or Munich, according to studies on the subject like the Mercer Report. Nonetheless, the city has experienced an astounding ascent over the past ten years. Today, it numbers among the most popular tourist destinations in Europe, and therefore, the world. Among its residents, who are notorious for their peevishness, it enjoys a comparatively high regard. It is considered a global mecca for creatives and artists, despite the fact that it doesn't even have a proper international airport. Night after night, it deluges visitors and residents alike in a flood of cultural events, even though it's practically the poorest major city in Germany. It is the capital of the most powerful national economy in Europe, and yet has been more or less written off as an economic locale for decades. Some ten years ago, when the upward trend was just underway, Berlin's long-time mayor summed it up thus: Berlin is poor, but sexy.

What then accounts for Berlin's success, its erotic appeal? The answer is made up of many parts. For one, the city is cheaper than most major cities on the continent. It also receives massive federal subsidies, which enable it to afford its expensive (cultural) way of life. And it is still enveloped by the notorious aura of being Adolf Hitler's imperial capital and the city at the front of the Cold War. But such arguments would have been all the more valid, or equally so, twenty years ago. Life in Bratislava, for instance, is even cheaper. Rome is probably even more heavily subsidized, and St Petersburg is also a historical legend. Berlin apparently has qualities that are especially popular today, and that are not embodied by many traditional centers. In particular, four of its qualities are valued highly in the age of climate change, Occupy, Facebook, and the Euro Crisis: the city is egalitarian, communicative, critical of consumption, and eccentric. What does this mean, more specifically?

1. The egalitarianism of Berlin society is based on the fact that it isn't ruled by isolated or established elites like other urban societies within and outside of Germany, but that, instead, it has developed a comparatively



autonomous and self-aware local culture. The only recognizable status symbol in egalitarian Berlin is coolness. At present, however, only those who live and think in an environmentally friendly, communal, and inclusive manner count as cool.

2. Berlin is communicative. It talks, argues, and flirts with itself, and with its visitors. It has developed networks and methods of relaying information that enable everyone — German-speaking or not — to come into their own in a reasonable amount of time. This culture of communication is an example of how Berlin's urban self-perception has changed over the past two decades. The majority of this communication today is informal and temporary, and is no longer organized, or even only regulated, by the state. In addition to the culture of iPhones and flyers, graffiti plays a significant role here. In Berlin — like Moscow — graffiti art began as an art of protest (and not just mere vandalism). Experts who study graffiti proceed from the notion that graffiti serves a “writing on the wall” function, and can be seen as a political thermometer. This is of particular significance in politically uncertain times. Here, graffiti can serve as an indicator of societal developments, measured by the degree to which it is either tolerated or persecuted because of its content. Such developments can be plausibly reconstructed on the basis of the vitality of Moscow's sprayer scene. Today, however, in Berlin, unlike in Moscow, graffiti is less the language of protest, but rather more an autonomous and alternative form of communication, by which members or representatives of certain communities communicate with each other or announce their orientation within the public sphere. For Berlin authorities and their counterpart, the hip-hop scene, the path to a largely peaceful co-existence has been a long one. Indeed, graffiti art will continue to be understood in Berlin as a counterculture. However, it can leave its traces behind in a large zone of tolerance with relatively little hindrance.

3. Berlin is, most particularly where it seeks to appear glamorous, the ironic alternative to bourgeois hedonism. The eco-shop is preferred to the delicatessen, the avant-garde boutique to the Prada store, the bicycle to the Mini Cooper. On the red carpet (at the Berlinale, for example), Berliners camouflage themselves in provincial airs to avoid any suspicion of being conceited. Luxury is not in high demand. The only things actually consumed here in mass quantities are exhibitions, theater shows, and parties.

4. Above all, Berlin is eccentric. People don't adopt trends from elsewhere with any enthusiasm, and are more content to go their own way. It's an assuredly thankless task to try to find a Berliner who is proud that his city is the capital. The born-and-bred Berliner is not a Berliner, but a citizen of his individual borough: a Charlottenburger, a Koeppenicker, or a Schoeneberger. Even a good twenty years after its reunification, the city has not overcome its division. The reason for this, more than anything, is Berlin's eccentricity. If a visitor approaches the city from the South on the Autobahn, signs will indicate that he must choose whether to drive in the direction “Center West” or “Center East.” The center of Berlin is therefore in the West or the East, not somewhere in the middle, as in other cities. Once the visitor has arrived, he will realize that neither on the Kurfuerstendamm (West) nor on Friedrichstrasse (East) is he in “the center.” He is at a lively part of the city to be sure, but there are more of these, and none of them enjoys supremacy.

Berlin's Stadtmitte district — the “city center” district — only suggests the semblance of a 'downtown'. In reality, this topography, a composite of the Wilhelmine era, National Socialism, Stalinist and GDR modernism, and neo-German contemporary architecture complete with the government district, only confirms that Berlin's cityscape at no point conforms to some kind of symbolism by which one could even approximately try to comprehend its history. Berlin's history deprives itself of a central perspective. What, then, accounts for Berlin's international and national success?

This success is founded in the congruity between the city's most conspicuous features and those of the public space most commonly employed today around the globe. Berlin's urban space resembles the structure of the Internet. The Internet too is egalitarian, communicative, critical of consumption, and eccentric; at least as imagined by its founders and primary user base, the global society of the e-generation. The political and cultural scale of values for this generation is defined by global issues, and how one negotiates them. Berlin is sexy above all to those between the ages of twenty and forty because the city embodies their way of life. Rejection of consumption, skepticism toward traditional authorities, solidarity and tolerance — these are the keynotes of an urban style about which today's internet residents are largely in agreement across the globe. Berlin represents a kind of physical topography of this virtual style.

In addition to this, the Internet teaches that all of its actors (or residents) exist in a general state of being networked. It teaches how to deal with new threats of anonymous surveillance, and the potential of communicative autonomy. It is not surprising that a city that has undergone various systems of state oppression is oriented today toward general principles of political transparency and social equality. Transparency and equality, however, are universal, and not values specific to Berlin. The more Berlin adopts these values, the further the city distances itself from its historical qualities. The more strongly it practices qualities that are global and contemporary, the less it resembles the city it once was.

For the regard in which Berlin is held today, therefore, the city should primarily thank its ability to become another city. It is less Prussian, less “West German,” less “Socialist,” yes, even less German, than ever before. The moment of surprise triggered when one experiences a metropolis that has apparently cast aside its typically negative stereotypes has brought Berlin a considerable international community of fans. Insofar as Berlin has become egalitarian, communicative, and eccentric, it has departed from its clichés: of being grey, harsh, authoritarian, forbidding. Visitors and residents surf through their city as if on a comfortable global platform.

The Internet makes no distinction between center and periphery. This too is increasingly true of Berlin. In the same way nowhere in Berlin is the middle, nowhere is truly peripheral. The periphery, in both the East and West, has generated its own independent urban life. Berlin has become a network, with visitors and residents, the past and the present, all actors on equal footing. By renouncing historical self-dramatization and cosmopolitan glamour on the one hand, and incubating an egalitarian zeitgeist critical of consumption on the other, Berlin has successfully challenged the traditional image of the European city, and changed it.

Meta-Cities in the State of Moscow

Grigory Revzin
Rozaliya Tarnovetskaya
Margarita Chubukova

Let us consider the 'proto-center' formation as "routes" running through the fabric of the city. From the point of view of urban planning, the situations in Sokol and Akademicheskaya-Cheremushki are virtually identical: the center is formed by the confluence of two major city highways, Volokolamskoye and Leningradskoye in the case of Sokol, and Leninsky Prospekt with Profsoyuznaya Street in the case of Akademicheskaya. The situation in the Cherkizovsky district is different however: here, the proto-center is formed along one large highway; Bolshaya Cherkizovskaya Street, running into the Shchyolkovskoye highway traversing the long wedge of the city between two forest zones, Losiny Ostrov and Izmaylovsky Park. The Maryino proto-center has grown at the intersection of two rather undeveloped motorways, Verkhniye Poly and Lyublinskaya Streets.

However, another factor is also involved here, namely the bend of the Moskva River, clearly framing the district. The very picture of proto-center formation in such situations is indeed remarkable and closely follows the logic of city-forming in non-urbanized areas. A city controlling the Y-junction, a city controlling the only road that runs through the canyon, a city at the bend of a river, so typical in the history of city formation it is perhaps pointless to draw analogies. Basically, this is how cities have always been formed. What is surprising is that it is not taking place in the Ticino canyon in the Alps, controlled by Bellinzona, or on the crossroads of France, Milan and Genoa, controlled by Turin, or at the bend of the Seine near a major road to Normandy, where Oissel and Tourville-la Rivière grew, but within the urban area itself.

This leads to a rather counter-intuitive conclusion: Moscow does not behave as a city, but as a country with cities developing within. However odd this appears at first glance, it is well in line with Moscow's economy, comparable to that of an entire state with an enormous population, which tends not to be mobile, but rather drifts in Brownian motion within its districts. These are not classical city centers; it would be absurd to say Maryino is the center of Kapotnya and Brateyevo, or Cherkizovo the center of Golyanovo, Izmaylovo and Bogorodskoye. Their nature is distinctly different. These are not city centers, but rather separate cities within Moscow's urbanized terrain.

Let us recall that as part of the social modernist project Moscow's periphery was an even grid of opportunities for each point in the territory; an artificially created living environment, in which people settle in a natural manner, in accordance with the codes dictated by their culture (in the anthropological sense of the term). But how do these people settle in, and how does this create a second-level city, a meta-city within the urban environment? Such meta-cities are what we have identified as proto-centers, a new urban phenomenon within this empirical study of Moscow's periphery. To the best of our knowledge, they have not as yet been described in urbanism. Here primary urbanization (i.e. urban networks) is not relevant. Clearly the proto-centers cannot exist without sanitation, running water and electricity, but the presence of all these systems is characteristic of the area itself, just as geology, hydrologic systems, climate, flora and fauna are of rural areas. In other words, these systems do not in any way affect their formation.

It would be important to distinguish primary network properties of the urban area from unique factors. Apparently, the presence of the subway is a common feature of such territories. Otherwise it would be difficult to explain why the existence of metro stations does not automatically lead to the formation of meta-cities. In all the cases analyzed, the subway is of course present — two stations at least. It seems impossible to explain, though, why such centers are not formed in other areas served by the subway. This would imply that the presence of the metro is merely a common feature of Moscow: taking the subway there is as common as getting caught in the rain. The presence of large highways, however, is a much more distinguishing phenomenon, with a greater impact on the formation of such proto-centers. This, however, is consistent with the fact that more than 80% of Muscovites use the subway as means of transportation; driving a car is a rather rare blessing!

Disappointingly, we should admit that architecture also belongs to these common urban area properties and has no impact on the process of meta-city development. None of the meta-cities identified present any particular interest in terms of architecture; they do not respond to either the presence or absence of significant monuments and masterpieces of modern architecture. One might say behind the Cherkizovo center formation is the creation of the local Disneyland (the Izmaylovo Kremlin) next to the Izmaylovo hotel complex, a heritage of Brezhnev's Modernism. Or, for Sokol, it is the presence of the unique Hydroproject building by Grigori Yakovlev. Possibly even consider Leonid Pavlov's genius expressed in the INION building as the main cause for the Akademicheskaya center. But in that case, where does Maryino fit in? The entire district has no remarkable architectural landmarks; it is a pure celebration of developer panel construction. The district center is a large circular void called the Artyom Borovik Park, architecture without impact. In other cases, too the architectural developments

are by no means exceptional, and greater architectural monuments and masterpieces elsewhere have not stimulated city formation.

If we accept this argument, we could then assume that city formation is linked to the discrepancies between the recently defined meta-cities and the urban centers envisioned in the 1971 Master Plan, plus subsequent attempts at creating bedroom community centers in Moscow.

Architects have correctly predicted the emergence of peripheral areas with increased activity, but have responded in traditional ways; by creating monumental structures, conspicuous in scale and composition — voids that were supposed to emphasize the solemnity of the place. In a sense, this was the modernist rationalization of the traditional experience of creating urban centers: large squares serving commercial or administrative purposes, marked with palatial buildings. To a certain extent, the same trend continues nowadays, with the exception that instead of the palaces of the Soviets or of Culture and Science, palaces of trade (large shopping malls) are being erected. It is the nature of meta-cities that these gaping voids and heights deter rather than attract.

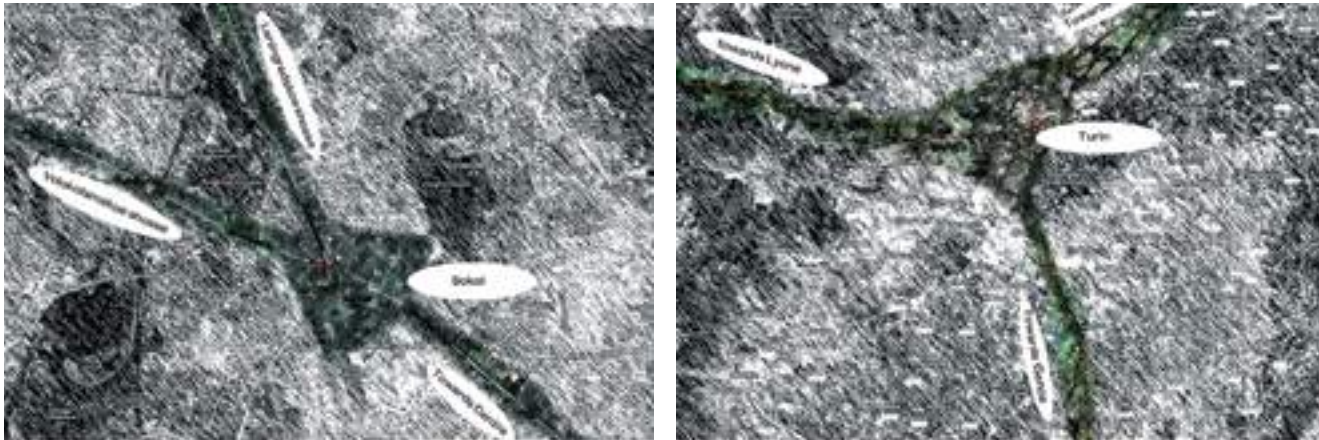
These meta-cities are extremely sensitive to the appearance of urban structures corresponding to the scale of social life: quarterly development, building lines, first floors that can accommodate trade, services, or small offices, etc. In three out of four cases examined, these structures were embedded in the Modernist development of the Stalinist period, located in the far periphery where the architecture of a rather modest scale. Maryino became a two-storey environment with commercial and consumer functions situated near the subway line. In terms of architecture, these structures are utterly alien to the district and below acceptable professional standards. Nevertheless, they are in great demand and the institutions they house are positively thriving.

With an even greater disappointment, we should admit that cultural institutions are not a factor of meta-city formation, either. It is not entirely clear whether these could be formed without the existence of a network of libraries, museums, theaters and cultural centers in the urbanized country of Moscow. Yet, we can observe that their presence or absence does not affect the likelihood of meta-city emergence. Culture in the sense of mass cultural institutions is once again a network feature and not a unique factor; it is not seen as an advantage. The relatively prominent cultural institutions within the meta-cities area, such as the cultural centers DK MAI in Sokol and DK "Meridian" in Akademicheskaya, are not exceptional for Moscow in terms of quality, but rather belong to a series of similar institutions, around most of which, however, no meta-cities have arisen.

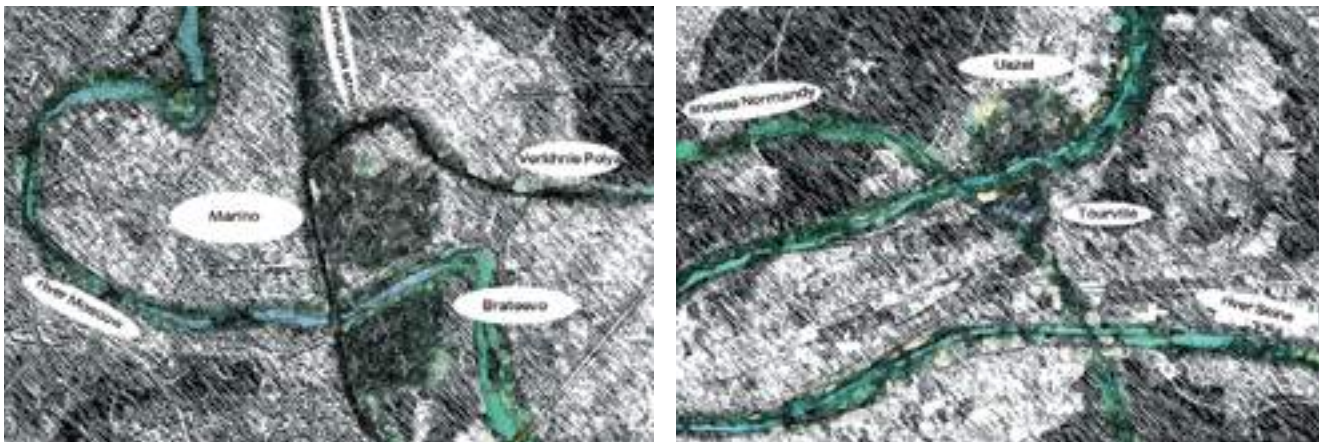
The key characteristics of these meta-cities are increased urban activity (at least in comparison with neighboring territories), the combination of various functions, and a more active exchange process between citizens.

This is consistent with the idea that the main features of post-industrial cities are societies and not architecture, monuments, cultural institutions or other artifacts. On the other hand, it is clear that the higher density of social life observable in these cases is not easily expressed or defined. Today

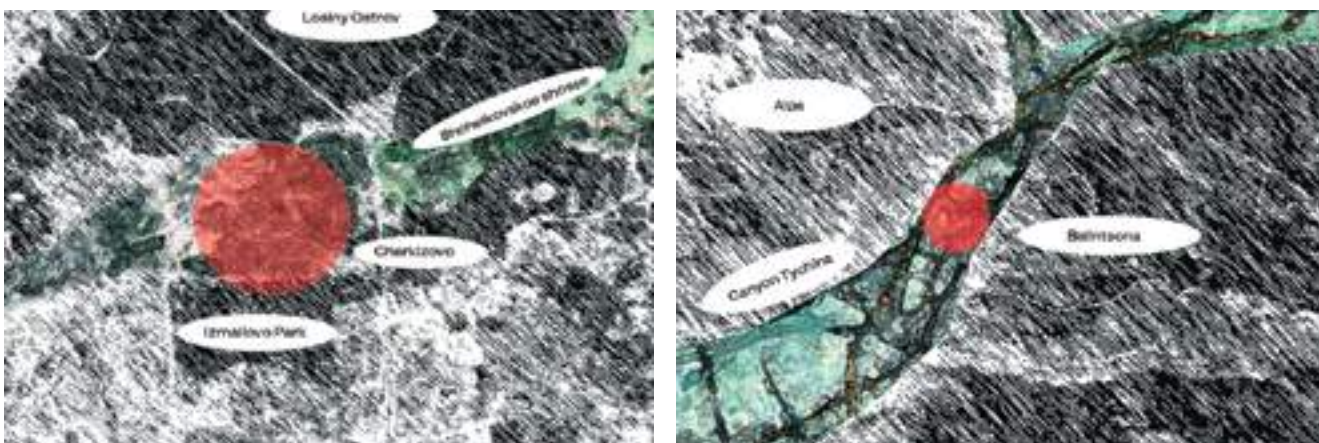
Comparison of the Sokol proto-center and the city of Turin



Comparison of the Maryino protocenter and the city of Oissel



Comparison of the Cherkizovo protocenter and the city of Bellinzona



we cannot say what makes the residents in Maryino different from those in Izmaylovo and Sokol: social activities occur sporadically and originate from different sources. Thus, Maryino may have become a meta-city because it was one of the newest Moscow districts: half of the development was built as late as the 1990s, and apartments were mainly purchased and not privatized, which allowed for a relatively wealthy population compared to the neighboring Kapotnya.

For Sokol and Akademicheskaya it may be the remains of the high-tech Brezhnev Moscow, the military-industrial sector, and institutions of the Academy of Sciences, which accumulated a relatively privileged population around themselves. This population managed to recreate itself in the new environment. However It seems fairly difficult to explain the emergence of the Cherkizovskaya meta-city; we can speculate that it is in fact a decreasing meta-city, the heritage of the Cherkizovsky market, which had functioned for a decade. The concentration of functions may have not been intended for the locals, but rather for a large flow of people coming from the outside. Perhaps this meta-city will eventually dissolve, while others will further develop and achieve more distinct profiles, and we will be able to brand Akademicheskaya and Sokol as meta-cities of the creative class (students, scientists, engineers, etc.) and Maryino as a meta-city of prosperous office workers, who were able to purchase real property in the post-Soviet Moscow.

So far, however, these are just premises. What we can say with reasonable certainty is that nowadays all these meta-cities have nothing to do with the presence of employment opportunities for their residents. Prosperous Maryino is actually a district with virtually no enterprises, institutes or offices, and the other three meta-cities only build up a tiny number of jobs within their borders. From the economic standpoint, what we have before us are consumer cities. It is consumption not production that centralizes them, bringing a new degree of complexity to urban life. If we add to this the stability of the resident population (according to social research data, up to two thirds of the population never leave the districts), we get the image of some kind of remarkable 'rentiers' massively settled in these places, actively consuming all the possible benefits, and it is rather unclear what resources they live off.

This situation can be compared to the economic picture of Moscow's existence, established within the framework of the present study by Alexey Novikov, with the idea that Moscow today is a plantation economy selling its development products on foreign markets. In this case we can assume that the meta-cities are in a way the settlements of plantation owners, who, through a complex redistribution chain, receive the resources from the cultivation of square meters in the neighboring areas, selling them to people whose revenue comes from the oil and gas industry. This raises the question as to what extent the Moscow meta-cities outlined here are in any way similar to the meta-cities on the periphery of other world megapolises. Although we believe the principle of spontaneous proto-center formation through the concentration of functions following the meta-cities model may be universal for post-industrial megapolises, the specifics of Russia's current economic situation are too evident for us to present this universality as anything but a hypothesis.

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S P A C E D

SOCIETY

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Static and Fluid in the Moscow Urban Fringe

Alexey Levinson

On the Source Data*

The subject of the survey and focus groups was the district. Further in the text, those who responded that they live in the relevant district are referred to as “district residents” — this group amounted to 700 people. Of this group, those who stated that they were born in Moscow are referred to as “native Muscovites”. Those who were not born in Moscow but live this area of the city, are referred to as such, or as “non-native residents of the district.” Those who responded that they are not residents of the relevant district and are in it temporarily, are referred to in the text as “guests” — 300 such people participated in the survey. Of this group, those who live in Moscow in another district of the city are referred to in the text as “Muscovite guests”. Those who have come from other Russian regions, or from other countries, are referred to as “non-Muscovite guests.” For our analysis, we determined four age-sex groups: men and women under 40 and over 40, who are sometimes referred to as younger and older. Based on disposable income, respondents were divided into categories with lower income and higher income — the first referred to as “less well-off” and the second “more well-off.”

The analysis is primarily based on the responses of Muscovites residing in the surveyed districts (700 respondents). Data from the survey of the 300 “guests” are less reliable and are used in individual cases for comparative purposes. In some cases, responses from the participants of the eight focus groups conducted with residents of the four districts of Moscow’s periphery are also used.

In the different sections of the chapter, responses are shown in table form with an indication of the share of the relevant responses as a percentage of the total number of respondents (700 or 300). These are averages for the corresponding data set. The answers of respondents from the categories specified above (men and women under 40 and over 40, native and non-native Muscovites, etc.) are of interest and are given in the text. In the course of the analysis brief findings and conclusions are presented in bold.

HOW WOULD YOU DESCRIBE YOUR MOOD OVER THE LAST FEW DAYS?	DISTRICT RESIDENTS	MUSCOVITE GUESTS
WONDERFUL MOOD	20	21
OK, NORMAL MOOD	57	47
I FEEL TENSE, ANGRY	16	19
I FEEL FEAR, SADNESS	4	9
DIFFICULT TO SAY	4	4

Mood

We will begin our description with the characteristics of mood. Among all categories of respondents a good mood dominated. Among the residents of the district a good mood was particularly prevalent (wonderful was stated by 24% of the well-off, "OK" by 60% of young men). The mood of guests (non-Muscovites) was somewhat less positive.

During the survey performed in the periphery from 4 to 11 October 2013, among native Muscovite residents of the district positive sentiments were mentioned by 80%, and among residents of the district born outside of Moscow, 72%. Among the guests who consider themselves to be Muscovites, positive sentiments were expressed by 76%, and among non-Muscovite guests, 68%. For comparison, it can be noted that among Muscovites surveyed from 12–17 October in another study by the Levada Center, a positive attitude was expressed by 69%, though it is possible that their mood was negatively affected by the fact that the survey occurred shortly after the riots in one of Moscow's districts, Biryulevo. The focus groups reflected the concerns of Muscovites in this regard.

A bad mood (tension, anger, fear, sadness) was experienced by women more frequently than men. This was expressed most frequently by women under 40 included in the guests category (34%). Among residents in the same age-sex category the share was 28%. Among older women who are residents of the district, 23% expressed a bad mood, and the share of older women guests expressing the same was higher at 27%. Men in general had a more optimistic mood and the same pattern was evident, that younger respondents were more likely to describe experiencing negative emotions than older respondents. Resident men under 40 described experiencing negative emotions in 12 of 100 cases, and men over 40 did the same in 10 out of 100 cases. Among younger male guests, 20 out of 100 people expressed feelings of depression, and older male guests did the same in half the number of cases.

Among district residents, native Muscovites complained less frequently than non-native Muscovites (17% vs. 25%). Among district guests, Muscovites complained less frequently than non-Muscovite guests (20% vs. 28%). Finally, a clear link was visible between mood and peoples' material conditions. Among residents, the less well-off complained more frequently (23%), and the more well-off complained less frequently (15%). Among guests the difference was even more distinct (32% vs. 16%). Thus, we can conclude that the highest level of social optimism is concentrated among male native Muscovites who are permanent residents of the district with a quality of life above average, and the lowest level of optimism is found among female less-well off non-guests.

Self-description of Residents

The most significant category of residents (more than a quarter of the total) work as professionals (with a special education). Among men over 40, the share is almost 45%. Just under a quarter of the total population are retired. However, among older women more than 47% are retired. Non-manual workers without a special education account for one fifth of the population. Manual workers account for one tenth of the whole population, while 22% of women under 40 are manual workers. Managers in total account for less than 6% of the population, but the share among women under 40 is almost 10%. Among this age category of women there are twice as many managers as entrepreneurs. Among men of the same age, bureaucrats and the well-off account for the same share of 7%. It is worth noting that all business owners in this area of Moscow are under 40 years of age.

The material status of Muscovites living in the surveyed area is evident from their responses to a traditional set of questions used by the Levada Center. Below are the results of a survey of Moscow's total population, carried out in the same month. A comparison shows that in general the financial situation of the studied sample and the population of Moscow is the same. However, among the population of the periphery the share of citizens in the wealthiest category is somewhat lower. There are grounds to believe that a significant portion of this category resides within the Third Transport Ring, in other words, in the city centre not the periphery of Moscow.

With regard to the overall balance of financial positions, it is evident that the share of well-off individuals is around one-tenth, and almost a half of Moscow's residents live in a state of limited income. The remainder have modest resources. It is significant that financial difficulties are reported by just under 10%. It is not appropriate to talk about the existence of a significant "middle class", but the very high concentration of responses (85%) in the two middle positions and much smaller figures at the ends of the scale should be noted. (We would like to again highlight that the richest, just like the very poor, tend to be under-represented in such surveys as their reachability is very low).

An important point is that among those born in Moscow, the share of those capable of buying "expensive things" amounted to 51%, whereas the share of non-native residents equalled 44%. "Native" Muscovites also demonstrated a higher proportion in relation to the last category, although only by a slight margin. In the less well-off groups, the picture is reversed. It is evident that the social and other capital that may be accumulated by more than one generation of a family in Moscow is higher than that which can be accumulated by one generation in the same city. Another factor is the relatively older (average) age of non-native rather than native Muscovites, which accordingly accounts for the higher proportion of pensioners, in turn explaining the low level of disposable income.

Income from business activities was most frequently found among young men (7%), and such income was only found among a small percentage of other categories. Earnings from liberal professions were negligible for all categories. Income from self-employment was found more frequently among women younger than 40 years (8%). Income from the renting out of apartments reached 5% among the more well-off — they have such apartments to

WHAT IS THE LEVEL OF INCOME OF YOUR FAMILY?	PERIPHERY SURVEY	WHOLE OF MOSCOW
WE DO NOT EVEN HAVE ENOUGH MONEY FOR FOOD	1	0.5
WE HAVE ENOUGH MONEY FOR FOOD, BUT NOT ENOUGH FOR CLOTHES	5	4
WE HAVE ENOUGH MONEY FOR FOOD AND CLOTHES, BUT THE PURCHASE OF MORE EXPENSIVE ITEMS, SUCH AS A TELEVISION OR REFRIGERATOR, CAUSES PROBLEMS	37	33
WE CAN PURCHASE SOME EXPENSIVE ITEMS, SUCH AS A TELEVISION OR A REFRIGERATOR, BUT WE CANNOT BUY A CAR	48	49
WE CAN BUY A CAR, BUT WE CANNOT SAY THAT WE ARE NOT LOW ON MONEY	8	13
WE CAN AFFORD ANYTHING WE WANT	1	1
WHAT IS THE MAIN SOURCE OF INCOME OF YOUR FAMILY?		
INCOME FROM ENTREPRENEURIAL ACTIVITY	3	
PAYMENT FOR COMPLETED PROJECTS/ PRIVATE PRACTICE	1	
INCOME FROM SELF-EMPLOYMENT (TUTORING, REPAIRS, CLEANING, PRIVATE CABBING, ETC.)	6	
WAGES/SALARY OF MEMBERS OF THE FAMILY	77	
PENSION/PENSION OF A FAMILY MEMBER	32	
INCOME FROM RENTING OUT AN APARTMENT OR OTHER FAMILY PROPERTY	3	
OTHER	2	
WHICH OF THE BELOW DOES YOUR FAMILY OWN?		
CAR	52	
TWO OR MORE CARS	10	
TWO OR MORE APARTMENTS IN MOSCOW	8	
SMALL COUNTRY HOUSE WITH ALLOTMENT COTTAGE	31	
HOUSE (APARTMENT) OUTSIDE THE CITY	2	
HOUSE IN A VILLAGE	6	
OTHER REAL ESTATE OUTSIDE MOSCOW	14	
	4	

rent out and this makes them even richer. The majority of Muscovites live on wages (77%), and among males older than 40 years this figure reached 95%. Around one third live on a pension, their own or that of a family member (such a situation was reported by as many as 38% of women under 40). In the less well-off category pensions were indicated as the main source of income by 48%, and the share of respondents from the more well-off category who indicated this source was less than half of this figure, at 21%. We note again that the majority of wealth in Moscow is created through employment and not business. More well-off Muscovites in 9 cases out of 10 have their wealth from a salary, and if that salary is high, it is from working in management or as an official.

We note first of all the very high level of car ownership. Even among the less well-off families, 37% have a car of some kind. From other surveys we know that in this segment there is a concentration of cars that are not new or are even old Russian-produced vehicles. But none of this segment have a second car. Among the more well-off families, 63% have one car and 17% have two or more cars.

Two or more apartments are owned by 13% of men younger than 40 years of age, twice as many as women in their age group and almost twice as many as men in the over 40 group. Among native Muscovites a second apartment is owned by approximately one in ten, and among “non-native” Muscovites this figure is one and a half times lower. Less well-off respondents also have such a resource to a certain extent (5%).

A very interesting pattern of ownership is found in relation to country houses — residential real estate outside of Moscow. As can be seen, the most common form of country house is a small house with an allotment. This type is owned by 38% of more well-off and 22% of less well-off Muscovites. In relation to houses in a village, in contrast, more are owned by less well-off respondents (16%), and this is less common among the more well-off (13%). Similarly, this figure is 16% for non-native Muscovites and 13% for native Muscovites. It is clear that some non-native Muscovites retain their roots in the village. It is also clear that their lagging behind Muscovites in the dynamics of urbanisation affects their accumulation of capital in Moscow.

A share of people who have moved to Moscow evidently retain real estate in other areas (7%), whereas this is the case for native Muscovites half as frequently. Cottages and country houses are owned by approximately 8% of the total respondents. Again, we note that the most wealthy Muscovites are least likely to live in the surveyed areas, and secondly, those of them who do live there are unlikely to have been covered by the survey.

Guests — Who are they?

The survey covered 300 people that do not fall under the category of “residents of this district.” As stated earlier in this chapter, we will refer to them as “guests of the district.” Around two-thirds of them described themselves as “Muscovites”. The sample size is limited, and therefore the accuracy of proportions in this case and all other cases is relatively low. Among non-Muscovites, more than half were residents of the Moscow region. This is an

WHAT IS THE LEVEL OF INCOME OF YOUR FAMILY?	PERIPHERY SURVEY	WHOLE OF MOSCOW
WE DO NOT EVEN HAVE ENOUGH MONEY FOR FOOD	0	1
WE HAVE ENOUGH MONEY FOR FOOD, BUT NOT ENOUGH FOR CLOTHES	8	5
WE HAVE ENOUGH MONEY FOR FOOD AND CLOTHES, BUT THE PURCHASE OF MORE EXPENSIVE ITEMS, SUCH AS A TELEVISION OR REFRIGERATOR, CAUSES PROBLEMS	40	37
WE CAN PURCHASE SOME EXPENSIVE ITEMS, SUCH AS A TELEVISION OR A REFRIGERATOR, BUT WE CANNOT BUY A CAR	44	48
WE CAN BUY A CAR, BUT WE CANNOT SAY THAT WE ARE NOT LOW ON MONEY	5	8
WE CAN AFFORD ANYTHING WE WANT	1	1
HOW DID YOU END UP IN THIS DISTRICT TODAY?	MUSCOVITES	NON-MUSCOVITES
I SPENT THE NIGHT HERE AND THEREFORE I HAVE BEEN HERE SINCE MORNING	7	31
I CAME HERE BY FOOT	6	1
METRO	57	24
ELECTRIC TRAIN	1	23
BUS	22	23
MINIBUS	11	9
TROLLEY BUS	2	0
TRAM	2	4
TAXI	2	1
PERSONAL CAR	16	11
COMPANY CAR	0	1
BICYCLE	0	0

important result of the study. The majority of visitors to Moscow's "first periphery" came from the "second periphery." Among other guests, non-Muscovite Russians (inhabitants of regions of the Russian Federation other than the Moscow region) account for approximately one third. Only one tenth of the respondents in this category arrived in Moscow from abroad. The survey, therefore, does not confirm the validity of claims expressed by Muscovites in the focus groups, regarding the "dominance" of migrants from other countries.

Based on the results of the survey it is not possible to determine the total number of visitors from other countries in the studied area. This is due to the fact that there is reason to believe that at the time when the survey was conducted in the streets and residential areas of the surveyed area, the majority of guest workers were at work — on construction sites, in factories, markets, or (as was frequently mentioned during focus groups with residents of Golyanovo and Kapotnya) at transportation hubs, such as the bus station. However, the survey was conducted precisely in those spaces that it is natural for residents of the district to consider as "theirs" and where the presence of "outsiders" is most noticeable. Consequently, it is about these spaces that we can say that the probability of residents meeting immigrants from other republics is not high, and of meeting visitors from other countries still three times lower: out of one hundred non-residents in the area, less than 9 people were visitors from other parts of Russia and less than 3 were from other countries.

Among guests the gender balance is shifted drastically. Guests were significantly younger than residents. Their average age was 38, while the average age of locals was 44. Among non-Muscovite guests there were significantly more men, 64%.

A comparison of the material status of non-Muscovite guests and residents of the area shows that non-natives are less wealthy people. (Once again, we emphasise that we are currently discussing non-natives met on the streets of the district. It is possible to assume that the migrant workers on construction sites and markets belong to a much poorer segments). Non-Muscovite guests differ from Muscovites (both guests and residents of the area) in that they have significantly lower levels of education. Among them the level of education is almost two times lower (27%) than among native Muscovite residents of the district, 51%. Among non-Muscovite guests, the same number have a special secondary education as a higher education (27%), and 23% have a middle general education. Approximately 12% have a lower secondary education or completed vocational schools based on this education. Of course, the least educated migrant workers, who are accommodated outside of the city limits and are contained en masse at construction sites, etc., are not covered by the survey. However, the results of the study do not allow us to conclude that non-Muscovite guests met on the streets of the study area are completely illiterate. Although this statement is frequently repeated by Muscovites.

Among the surveyed Muscovite non-residents, i.e. those guests that had come from other parts of the city, in 60 cases out of 100 they were there for personal, family reasons. Less than 10% were there for a walk or for shopping, and only the remainder (less than one-third) were there for work, business or study. Thus, communication within the "periphery" is to a very

large extent related to personal rather than business reasons (this is also supported by answers obtained during focus groups). And although almost one-fifth were there for a walk, only 7% came to the area by foot.

Among non-Muscovite guests, the ratio of reasons for being in the area was the opposite. Almost 70 % of them were there for business, and no one came for a walk. Almost no one came by foot and very few people came to shop. Family reasons were mentioned half as frequently. This is not surprising, given the young age of non-Muscovite guests and the gender imbalance in favour of men, as well as the fact that the purpose of their stay in Russia and Moscow is to earn money. In fact, that even 8% of respondents mentioned “family” reasons for visiting, indicates that a considerable level of settlement in Moscow occurs due to the formation of families.

Almost all of the purposes for visits, except for work- and business-related, were referred to as “private.” Given their presumed high level of involvement in the unofficial economy, it can be assumed that this term also conceals business contacts of an unofficial nature.

Around 60% of Muscovites who arrived from another district came by metro, a further 22 % by bus, and 11% by minibus. More than 15% travelled by private car. We note that for Muscovites who travelled from one district to another, inner city electric transport (tram, trolley bus, electric train) did not play a role comparable with that of minibuses (5% in total vs. 11%). Among non-Muscovite guests nearly one third had spent the night in the area. As many travelled by metro as by electric train and by bus (24%, 23% and 23%, respectively). The number who used minibuses was almost level with that of Muscovites, 9%. Private cars were used no less frequently, 11%.

It is clear that nearly a third of guests had found shelter somewhere in the district, and almost a quarter had travelled from the suburbs by train. It is noteworthy that their level of use of personal cars to travel to the area is comparable with visiting Muscovites (11% vs. 16%), and the level of use of the metro was two and a half times lower (24% vs. 57%).

My House, My District

It is often said that today in Moscow people do not know who lives next to them. However, the proportion who found it difficult to answer the question “who primarily lives on your staircase, in your building?” was less than one-sixth of the total sample. 44% knew “a large number” of people living in their neighbourhood, and among older women this figure was 54%. 46% knew “several people.” Those who said they “do not know anyone” was less than 2%. At the same time, more than half (among older women the figure

WHICH FLOOR DO YOU LIVE ON?	LESS WELL-OFF	MORE WELL-OFF
1–2	18	12
3–5	35	31
6–10	32	38
11–16	15	18
17 AND HIGHER	1	2

DO YOU BUY GROCERIES, AND IF SO, IN WHICH REGIONS OF THE CITY?	
WITHIN MY REGION	95
IN OTHER REGIONS (EXCEPT THE CENTRE OF MOSCOW)	23
IN THE CENTRE OF MOSCOW	10
OUTSIDE MOSCOW	14
I DO NOT BUY GROCERIES	1.4
I FIND IT DIFFICULT TO ANSWER	0.4

was 70%) regularly or occasionally discuss problems related to the building and the surrounding area with their neighbours.

People believed that their neighbours were mainly born in Moscow (28%) or came to Moscow more than 15 years ago (29%). The older people were, the more inclined they were to see their neighbours as “native” Muscovites. And the percentage of those who were born in Moscow that believed that their neighbours were the same as them was significantly higher (36%). It is important that the share of the recently arrived assessed by residents was low: 7% stated that their neighbours moved 2–5 years ago, and 5% said that they moved less than 2 years ago. In fact, non-Muscovite guests with the lowest period of residency in Moscow believed this proportion to be even lower.

On the whole people were reserved in relation to talking about the population of their district. The main answer was evasive (“there are different people...,” 60%). The same answer dominated in the assessment of Moscow's population as a whole. But when talking about the inhabitants of Moscow in general, respondents gave the answers “on the whole I like them” and “on the whole I don't like them” almost evenly (13%). And when assessing the inhabitants of the district, people more frequently gave a positive evaluation (15% vs. 12%). At the same time, among women younger than 40 years discontent in relation to their neighbours dominated, and among women older than 40, on the contrary, a positive attitude dominated. As for familiar-

ity with the district, the level was highest among young men. On the whole, 37% amongst men know “each house, courtyard and street”, and only 6 % did not know the area at all.

97% of residents live in their own apartments, and the proportion living in communal apartments ranged from 1% among the more well-off to 4% among the less well-off. At the same time, 78% reported that the apartment belongs to them or their family members, and 13% said that the apartment belongs to their relatives. It is significant that among those born in Moscow apartment owners accounted for 84%, among those born outside of Moscow the figure was 69%. Among the latter group, 17% live in an apartment owned by relatives, and among Muscovites the figure was only 10%. On average 7% lived in non-privatised (municipal, departmental) housing, but among the less well-off 11% lived in such housing and among the more well-off — less than 5%.

The distribution of residents with different levels of wealth by floor of the building is telling. Among the less well-off, 52% live on the first 5 floors, of which 18% live on the first 1-2 floors. Among the more well-off, 43% live on the first 5 floors, of which 12% live on the first two floors. Among the first category, 16% live on the 11th floor and above, and among the second category, 19%. It can be concluded that poor people are much more likely than the wealthy to live in five-storey buildings, which were built long ago, and the more prosperous are likely to live in newer buildings with more floors.

Two-thirds of residents reported that a shop where it is possible to regularly buy suitable food is “close.” “Not very far” was responded by 30% and only 4% complained that it is “far away.” Regarding the closest metro station, 47% said it is “near”, and 16% said it is “far away.” Those who recently moved to Moscow are more forgiving, with 50% saying the metro is close and only 13% stating that it is far away.

The district's residents consider the proximity of the nearest cafe, bar or restaurant where they would like to spend time to be roughly the same. The answer “not far” was given most frequently by people younger than 40 years of age primarily men (48%). They are to the greatest extent involved in the relevant culture. Older women, the group least involved in this “cafe culture” were least likely to believe that such places are close (39%). However, it is likely that they mean symbolic proximity. They were five times (!) more likely than young men to have no idea how far such establishments are located. When considered from the perspective of prosperity, roughly the same groups show the same striking difference in the awareness of the location of “shady establishments” in their district (4:1). The survey thus makes it possible to conclude that for the majority of residents of Moscow's periphery the proximity to the metro, shops and parks is satisfactory.

From the survey data it is also clear that in principle the retail trade network in Moscow's periphery provides the population with groceries. 95% of all residents in the surveyed area buy groceries within their district. The most mobile part of the population (28–29% of men) also buy them in other areas of Moscow, and some of them (16–17%) buy them beyond the Moscow Automobile Ring Road (MKAD). In all of the mentioned groups, the order is as follows: 9/10 purchase them in their own area, another 1/5–1/4 in other areas, 1/6–1/8 outside Moscow, and even fewer (13–14% of men) in the centre of Moscow. The centre of Moscow is not meant for this purpose.

Cultural Outings

First we will look at those who did not visit cultural establishments during the past year. This figure was 33% among young women. Evidently these are mothers with young children. Among their male peers (and the fathers of their children) the number who did not attend cultural establishments in the last year is almost 5 times lower. Women under the age of 40 attend such establishments in the centre of Moscow almost two times less frequently than their male peers. This is the immobile population. Another category with a low frequency of visits is the less well-off (33% have not been anywhere in the last year). Like older women, they travel to other parts of Moscow (for cultural purposes) least of all — 21 out of 100 people (among the well-off the figure was 38 people).

As a norm, shown by the average for the sample, half of the population of the periphery stated that they consume culture in the city centre. The male part of the population uses the city centre for this purpose at a much higher rate than the norm (70% of men older than 40 years of age, and 62% of men younger than 40 years of age). More than half of “native Muscovites,” compared to 43% of those not born in Moscow, consider it necessary to go to the centre for cultural activities (or at least this is what they say). In second place was consuming culture in one's own district. Although the number of men that this applies to was low, they are more active than women in this respect. “Native Muscovites” were again more active than those who have not always lived in Moscow (39% vs. 33%). It is interesting to note that the more well-off part of the population exceeded the less well-off in relation to visits to cultural establishments in their area (38% vs. 35%) to a much less degree than in relation to travelling to the centre (59% vs. 36 %) or to other areas (38% vs. 22%). Consumption of culture outside of Moscow is almost non-existent, with only 4–5 out of 100 people having done this during the last year.

What type of culture is consumed by Muscovites who cannot or are unaccustomed to visiting cultural institutions, in particular central city establishments?

The research findings show that a computer (the Internet) has not occupied this role. Those who visit cultural establishments least frequently, in turn also consume less online information or use a computer for entertainment. Young women were 10 times more likely than young men to state that they do not use a computer at all. Less well-off individuals stated that they do not use a computer four times more frequently than the more well-off. The role of the cultural hearth for the mass population of the Moscow pe-

HAVE YOU VISITED CULTURAL
ESTABLISHMENTS (CINEMA, CONCERTS,
THEATRES, MUSEUMS, ETC.) IN THE LAST
12 MONTHS, IF SO, IN WHICH DISTRICTS OF
THE CITY?

WITHIN MY DISTRICT	37
IN OTHER DISTRICTS (EXCEPT FOR THE CENTRE OF MOSCOW)	31
IN THE CENTRE OF MOSCOW	49
OUTSIDE MOSCOW	5
I HAVEN'T VISITED CULTURAL ESTABLISHMENTS IN THE LAST 12 MONTHS	22
I FIND IT DIFFICULT TO ANSWER	1

HOW MANY HOURS DO YOU SPEND ON
AVERAGE PER DAY WATCHING
TELEVISION?

I DON'T WATCH TELEVISION	7
LESS THAN 1 HOUR	12
1-3 HOURS	33
3-5 HOURS	30
6 HOURS OR MORE	16
I FIND IT DIFFICULT TO ANSWER	1

HOW MANY HOURS DO YOU SPEND ON
AVERAGE PER DAY USING A COMPUTER?

I DON'T USE A COMPUTER	27
LESS THAN 1 HOUR	9
1-3 HOURS	24
3-5 HOURS	23
6 HOURS OR MORE	16

IF YOU HAVE THREE OR MORE HOURS
OF FREE TIME, WHERE DO YOU USUALLY
SPEND IT?

AT HOME	54
IN MY DISTRICT	46
IN ANOTHER DISTRICT (NOT IN THE CENTRE)	14
IN THE CENTRE OF MOSCOW	14
OUTSIDE THE CITY, NOT FAR FROM THE MOSCOW AUTOMOBILE RING ROAD	3
IN THE COUNTRYSIDE	11
I FIND IT DIFFICULT TO ANSWER	3

riphery is occupied by the television. A lot has been said about the antagonism between the Internet and television. We can show this using the following examples. Young women, as mentioned above, are much more likely than men to not use a computer. However, the share of young women who do not watch television is two and a half times lower than that of men. Internet use is more prevalent among the rich than the poor. With television the opposite is the case. Native Muscovites are more likely than non-native Muscovites to use the Internet, but less likely to watch television. One third of young women and more than a third of older women have the television switched on for 3–5 hours a day, and another 18% of younger women and 24% of older women are close to a switched on the television for 6 hours or more per day. Men watch television more selectively. 22% of younger men and 17% of older men have it switched on, they say, for less than an hour a day. The most frequent answer for men (36% and 40%, respectively) was that they have the television on for 1–3 hours.

Evidently there are two different modes for watching television: selective (“male” type) and non-selective (“female” type). According to many sources the typical Russian television viewer is in the category of “women over 40.” Our study confirms this, but adds that in the Moscow periphery women younger than 40 years of age are already preparing themselves for this social role. Being in the zone of influence of a switched on television for several hours replaces consumption of the city, the urban environment and its delights in the form of the city centre and cultural establishments. In this context it is interesting that young women more frequently said that a park or square is close to their home. A walk in the park — a city version of anti-urban behaviour — is more accessible for them by virtue of their family circumstances (young children) than typical city behaviour. Such city behaviour is replaced for them by the television, as a super-urban virtual environment. It is another thing that they prefer or need to prefer this kind of passive virtual consumption to the more active version provided by a computer.

Moving around the city

Recreational consumption in the city centre is a characteristic of older men, who travel to the centre, according to their responses, most frequently of all (27%). The share that head to neighbouring districts is almost the same (from the analysis of responses during focus groups it can be understood that this primarily represents trips to visit relatives). Recreation (including in the form of shopping) in shopping centres located just outside the MKAD is chosen more frequently by those who live in the periphery zone adjacent to the border of Moscow. However, all of these forms of recreational pastimes are far less common than spending one's leisure time at home or in one's own district. Women primarily spend free time at home; men primarily in their own district. The sedentary nature of both genders in Moscow's periphery is undeniable. They would prefer not to leave the area.

That they do not go to the centre of Moscow at all was reported by nearly 30% of women over 40 years of age (those who most frequently watch television) and 22% of women younger than 40. Trips to the centre for business purposes (work, study) were reported by 50% of young men. Men are more likely than women to go to the centre to meet with friends (37%). The no-

FOR WHAT REASONS DO YOU TRAVEL TO THE CENTRE OF THE CITY?	
TO WORK, STUDY, ON BUSINESS, ON WORK-RELATED OR STUDY-RELATED BUSINESS	33
TO MAKE PURCHASES OF AN EVERYDAY NATURE	6
TO VISIT LARGE SHOPPING/ ENTERTAINMENT CENTRES	17
TO MEET ACQUAINTANCES, FAMILY, CLOSE FRIENDS	31
TO VISIT ADMINISTRATIVE INSTITUTIONS, MINISTRIES, GOVERNMENT BODIES	13
TO GO TO A MUSEUM, EXHIBITION, THE THEATRE, A CONCERT	30
TO GO TO THE CINEMA	16
TO GO TO A CAFE OR RESTAURANT	15
TO VISIT PUBLIC EVENTS, CELEBRATIONS, A DEMONSTRATION	13
TO TAKE A WALK ON THE CITY STREETS, IN A PARK	20
OTHER	1
I DON'T GO TO THE CENTRE	17
I FIND IT DIFFICULT TO ANSWER	1.9

FOR WHAT REASONS DO YOU USUALLY TRAVEL TO DISTRICTS ADJACENT TO THE OUTSIDE OF THE MKAD AND THE IMMEDIATE SUBURBS?	
TO WORK, STUDY	9
TO MY COUNTRY HOUSE	40
FOR PURCHASES, GROCERIES	22
FOR A WALK (ON FOOT, BY BICYCLE, SKIS, ETC.)	9
OTHER	4
I DO NOT GO BEYOND THE MKAD	29
I FIND IT DIFFICULT TO ANSWER	5

HOW OFTEN ON WEEKDAYS DO YOU TRAVEL	TO THE CENTRE OF MOSCOW?	TO OTHER DISTRICTS OF MOSCOW?	BEYOND MKAD
EVERY DAY	10	27	4
3-5 TIMES PER WEEK	8	15	3
1-2 TIMES PER WEEK	22	16	13
1-2 TIMES PER MONTH	20	15	18
LESS FREQUENTLY	20	13	25
NEVER	16	12	32

HOW MUCH TIME DO YOU SPEND IN A NORMAL DAY ON AVERAGE	INSIDE YOUR OWN DISTRICT	WITHIN THE BOULEVARD RING	WITHIN THE GARDEN RING	WITHIN THE THIRD TRANSPORT RING	BEYOND MKAD
I DON'T GO THERE	1	42	39	41	54
LESS THAN 1 HOUR	2	14	13	9	6
1-3 HOURS	8	10	12	10	8
3-5 HOURS	12	5	5	5	4
5-8 HOURS	12	3	5	10	2
8-10 HOURS	13	2	4	9	2
10-12 HOURS	13	LESSTHAN1	1	2	1
MORE THAN 12 HOURS	36	LESSTHAN1	LESSTHAN1	2	1
I FIND IT DIFFICULT TO ANSWER	3	23	21	22	23

ble purpose of going to a museum or the theatre was also significantly more frequently reported by men than women (37% vs. 27%), and in relation to going to the cinema – twice as frequently by men than women. At the same time, it is known from other studies that the audience of such cultural establishments is predominantly female. Perhaps the men's answers represent more of an intent than actual practice. Men are 2–3 times as likely as women to visit the centre of Moscow in order to visit a restaurant or cafe. A walk through the streets of the centre of Moscow is particularly attractive to men older than 40 years of age (29%).

It is noteworthy that the centre as a concentration of administrative institutions is needed above all by the centre itself, rather than the rest of Moscow. 13% go to the centre for the purpose of visiting such institutions. Based on the frequency of this reason for visiting the centre being mentioned, it is in eighth position out of ten, and the ninth is to visit a public event. Going to the centre for everyday purposes is not common. For such purposes people go to a large shopping and entertainment centres. It is not young women who most like to travel there, but rather men older than 40 years of age (31%, among young women, 10%).

People travel even less frequently in the opposite direction from the centre. Among older women 39% do not travel there at all, but if they do go the most common reason was to visit a country house, at 42%. Men travel there to make purchases (28%-29%).

On weekdays people do not spend much time there. 54% of district residents do not go outside Moscow during the week. Among guests, every day less than 5% go there. The survey showed that the main journey Muscovites make on weekdays is within the zone between the MKAD and the Third Transport Ring. Among young men, 63% makes such trips three times a week or more. For comparison, during the same period less than 32% make a trip to the centre and 9% travel beyond the MKAD.

Frequent visits to the centre of Moscow during the week were not typical for older women (8%), and women younger than 40 years travel there more than twice as frequently (18%). Men over 40 travel there even more fre-

quently (21%) and the most frequent visitors, as mentioned previously, were young men – the most mobile segment of the population. However, among such men 32% travel to the centre frequently, and twice as many travel to other districts (63%). From the high frequency of these visits it is safe to conclude that the nature of these visits is business related.

From the presented data it can be concluded that the closer to the Kremlin (the "centre of the centre"), the less Muscovites travel there on weekdays. These data confirm our earlier conclusion that for the majority of Muscovites the centre is needed as a symbolic rather than a business resource. They also confirm the idea that the radial-ring structure of Moscow is not only the structure of transportation routes. It retains its significance as a regulator of relations with the periphery, protecting the centre against an influx from the periphery. Today this function of a succession of barriers is not performed by city walls and not by the highways built in their place, but by the functional specialisations of the zones of Moscow which have been preserved from those times, as well as by the hierarchy of status of these zones as preserved in the ongoing discourse of Moscow's law enforcement agencies, and the related requirements to maintain order as they understand it.

Perception of the District

It is by no means the case that all of the inhabitants of the area of Moscow we refer to as the "periphery" in this project use this name for their region. 37% of "native" Muscovites believe that their district, if not the actual centre, is "near the centre". This formulation appears to have left the greatest impression on all groups of the population. Young women were most likely to agree with the description of their district as the "periphery" (30%). Men younger than 40 accepted the definitions of "periphery", "outskirts" and "close to the outskirts", with equal frequency (21%–22%).

Muscovites noted a number of merits of their district. It is worth comparing the opinion of those who live in the area and those who came to visit. In general, visitors were understandably less confident in their assessments than residents of the surveyed districts (3–4 times more found it difficult to answer). When describing their district, Muscovites answered, "there is nothing unattractive" in 20% of cases, and guests in 25% of cases, i.e. the latter generally gave a more sympathetic assessment of the district. It is however true that the critical response, "there is nothing attractive" was also given by twice as many guests as Muscovites – patriots of their district (13% vs. 6%), but they also gave the generally positive answer "there is nothing unattractive" twice as infrequently (as mentioned above, 25%). Among Muscovites, the highest level of approval for the district was expressed by older women (21%), and among guests the district was found most appealing by younger women (29%). The first category know its value, while the latter see prospects for themselves in the district.

Those who had travelled to the district – which is logical as they had travelled there – most of all appreciated its transport links; noted most frequently by older women (37%). This factor also occupies first place for young men, but less than 25% noted this as a merit. Among those who trav-

WHICH OF THE FOLLOWING DESCRIPTIONS IN YOUR OPINION IS MOST APPROPRIATE FOR YOUR DISTRICT?	
IT IS THE CENTRE OF MOSCOW	3
THIS DISTRICT IS CLOSE TO THE CENTRE	32
THIS DISTRICT IS IN THE CITY PERIPHERY	36
THIS DISTRICT IS CLOSE TO THE OUTSKIRTS	18
IT IS THE OUTSKIRTS OF MOSCOW	19
I FIND IT DIFFICULT TO ANSWER	2

elled to the district, young women more than other categories (32%), noted the “developed social infrastructure and its satisfactory quality: schools, hospitals, kindergartens and so on.” Older women who came to the area — say, in the role of grandmother — were particularly attracted by such factors as the relatively “low cost of living: the close proximity of markets and the relatively low prices for consumer goods and groceries” (32%).

Young men appreciated the quality of housing in the area, but they also rated the availability of entertainment opportunities just as highly (19%). It is noteworthy that their female peers evaluated the quality of housing slightly higher, and the availability of entertainment opportunities twice as low. Evidently, some of the pastimes that men consider to be entertainment are not considered as such (for themselves, or at all) by women. If we compare the merits of the district noted by Muscovite guests and non-Muscovite guests, three major differences are evident. For non-Muscovites the district is primarily a place of work, and because of this its accessibility in this capacity is one and a half times more important for them. Muscovites compare housing in the district with their own housing in another part of Moscow and do not find significant differences. Non-Muscovite guests make comparisons against what they have left behind in the places they came from, and housing here more often seems attractive. The same can be said for the perception of social infrastructure.

Generally speaking, the highest number of positive responses was received in relation to developed social infrastructure in the district. This was most appreciated by women (43%), the main sedentary population of the district. Transport links came in second place overall, but was in clear first place for young men (42%). This factor was particularly valued by the less well-off, i.e. those who own fewer cars (44%). Third place overall was occupied by the “relatively low cost of living.” This is important for everyone, but the greatest importance was attributed to this factor by men older than 40 years of age (39%). Good quality housing, as has been said, first and foremost pleases its owners.

As for the negative, unattractive features of the district, in general they were noted significantly less frequently than positive features (2.3 times less

WHAT DO YOU FIND ATTRACTIVE IN THIS DISTRICT?	RESIDENT RESPONSES	"GUEST" RESPONSES
HOUSING IS WELL MAINTAINED AND KEPT IN A GOOD CONDITION	30	19
RELATIVELY LOW COST OF LIVING: CLOSE PROXIMITY OF MARKETS AND RELATIVELY LOW PRICES FOR CONSUMER GOODS AND GROCERIES	35	22
GOOD TRANSPORT LINKS	38	31
DEVELOPED SOCIAL INFRASTRUCTURE AND ITS SATISFACTORY QUALITY: SCHOOLS, HOSPITALS, KINDERGARTENS AND SO ON	40	21
AVAILABILITY OF ENTERTAINMENT OPPORTUNITIES AND CULTURAL OBJECTS	16	15
CLOSE TO WORKPLACE	21	18
POSITIVE ECOLOGICAL SITUATION, CLOSE PROXIMITY OF LARGE PARKS AND OTHER NATURE AREAS	25	12
CONVENIENT LOCATION IN RELATION TO TRAVELLING TO MY COUNTRY HOUSE	16	7
SAFE DISTRICT	14	10
GOOD NEIGHBOURS	16	2
OTHER	3	3
THERE IS NOTHING ATTRACTIVE ABOUT IT	6	13
I FIND IT DIFFICULT TO ANSWER	3	12

WHAT DO YOU FIND UNATTRACTIVE IN THIS DISTRICT?	RESIDENT RESPONSES	"GUEST" RESPONSES
MONOTONOUS BUILDINGS, BAD ARCHITECTURE	19	11
HOUSING IN A POOR STATE, DIRTY STAIRCASES AND LIFTS	16	6
POOR TRANSPORT LINKS, DIFFICULT TO GET OUT OF THE DISTRICT TO THE CENTRE OF THE CITY, TO THE COUNTRYSIDE	18	13
A LONG WAY TO TRAVEL TO MARKETS, SHOPS	10	4
A LONG WAY FROM GOOD SCHOOLS, HOSPITALS, KINDERGARTENS, ETC.	6	2
NO ENTERTAINMENT OPPORTUNITIES, CULTURAL OBJECTS	11	6
A LONG WAY FROM WORK	10	4
A LONG WAY FROM THE CITY CENTRE	17	21
POOR ECOLOGICAL SITUATION	14	12
UNSAFE DISTRICT, CRIME	12	10
UNPLEASANT NEIGHBOURS	5	1
OTHER	6	3
THERE IS NOTHING UNATTRACTIVE ABOUT IT	20	25
I FIND IT DIFFICULT TO ANSWER	8	22

WHAT WOULD YOU PREFER IF YOU HAD THE OPPORTUNITY?			
TO LEAVE THE DISTRICT AND NEVER COME BACK	6		
O LIVE SOMEWHERE ELSE, BUT TO COME HERE FROM TIME TO TIME	12		
TO LIVE IN THIS DISTRICT, BUT TO TRAVEL TO OTHER PLACES FROM TIME TO TIME	41		
TO LIVE IN THIS DISTRICT AND NOT LEAVE HERE AT ALL	38		
CAN YOU SAY THAT IN YOUR DISTRICT IT IS	SAFE?	COMFORTABLE?	CLEAN?
YES	10	16	18
ON THE WHOLE, YES	40	44	46
IN SOME PLACES	36	33	31
NO	11	5	4
I FIND IT DIFFICULT TO ANSWER	3	2	1

frequently). The response “there is nothing unattractive” was give 3.6 times more frequently than the response “there is nothing attractive.” In fact, the response refusing to see any flaws was the most common on average. In first place among residents were criticisms regarding architecture and the monotony of construction. During focus groups with residents of the districts it became clear that in their opinion there remain reasons for the sarcasm regarding the monotony and uniformity of construction which first arose more than 20 years ago in the celebrated film “The Irony of Fate.” Clearly, cosmetic improvements to the district, small-scale architecture and landscape design, and the trees that have grown up, are not capable of compensating for the trauma inflicted by the personality of the standardised appearance of housing.

If it also continues to receive positive reactions from residents, in first place for Muscovite guests is the distance from the centre (21%). Although this response was particularly frequently received from older women (26%) and older men (24%), for younger women this factor appears to be almost half less important, but they were almost twice as likely to report the opposite of the same situation, poor transport links (18%). Remoteness, perceived symbolically as “distance from the centre,” or physically as poor transport links, is the main complaint of guests of the district. In fact, for residents of the district the sum of these factors also outweighs any other. But for residents of the district “bad architecture” plays an important negative role, while for guests its importance is not so great. Muscovite and non-Muscovite guests equally frequently (12%) expressed criticisms regarding the poor ecological situation in the district they were visiting. Locals note this even more frequently. However, in general it is clear that the reputation of the districts is known to guests.

Locals notice poor housing, with guests noting this aspect several times less frequently. They see less of the housing “from the inside.” We note here that the criteria related to dirtiness and neglect are almost were on the same level for non-Muscovite guests as for Muscovite guests. 12% of the “owners” of the district (and particularly older women) are concerned about the lack of safety in the district and “unpleasant neighbors.” For those who only visit the district for a short time this factor is less important, although among them older women were most concerned about crime. It is telling that most of the guests simply did not consider the factor of “unpleasant neighbours” as significant. It is well known that marginalised groups often show a higher aversion to other marginalised people, compared to that shown by “native” people. Complaints about “unpleasant neighbours” were half as likely to be received from native Muscovite residents as from those not born in Moscow, and among Muscovite guests of the district, three times less likely than from guests from other regions.

The largest portion of the district's population does not want to leave for good. Among the most mobile group (males under the age of 40), most would like to live there but to go to other places (50%). The same was also wanted by men over 40 years of age (47%) and women under 40 years of age (40%). For the least mobile segment of the population (women older than 40 years of age) their heart's desire is to live in the district without having to travel anywhere (48%). The population of the district is clearly “sedentary.” We will return to this issue when comparing these responses with those of guests.

Residents of the district rated separately the level of security, comfort and cleanliness in the district. From residents' responses it follows that, in their view, the situation is the most positive in relation to cleanliness and the least positive in relation to safety. Less well-off people mentioned the lack of safety most frequently (16%). Their overall lack of security in life causes them to experience more fears. Fear was felt least of all by men older than 40 years of age (6%). We particularly note that the highest number of responses regarding it being safe or generally safe in the district were given by young women (56%). It cannot be ruled out that the fact that they primarily travel by car contributes to this impression.

The majority of men and women (from 55–66%) spoke of the comfort of living in their district, and its cleanliness (67% for men under 40)

Who lives in the District?

The “age” of the population living in Moscow's periphery is evident from the survey data. Three-quarters of residents have lived in the district for more than 10 years. Among those born in Moscow, 45% have lived in the district for over 30 years, i.e. these are probably the first settlers in the district, those who once received apartments in new buildings. Moscow's demography is such that the old-timers primarily include elderly women, and among the latter, most have lived in the area for over 30 years. The answers of the respondents themselves were the same. Who, in their assessment, primarily lives in the area? The answers to this question, i.e. the question of who is the symbolic owner of this space, proved to be significantly depen-

HOW LONG HAVE YOU LIVED IN THIS DISTRICT?				
LESS THAN A YEAR	2			
1–3 YEARS	6			
3–10 YEARS	17			
10–30 YEARS	38			
MORE THAN 30 YEARS	36			
REGARDING THE POPULATION OF THE DISTRICT, WHO PRIMARILY LIVES IN THIS DISTRICT?	RESIDENTS OF THE DISTRICT		GUESTS	
	BORN IN MOSCOW	OTHER	MUSCOVITES	OTHER
PEOPLE BORN IN MOSCOW	36	16	23	19
PEOPLE WHO MOVED TO MOSCOW MORE THAN 15 YEARS AGO	23	33	12	15
PEOPLE WHO MOVED TO MOSCOW 5–15 YEARS AGO	14	18	21	21
PEOPLE WHO MOVED TO MOSCOW 2–5 YEARS AGO	7	7	7	12
PEOPLE WHO MOVED TO MOSCOW LESS THAN 2 YEARS AGO	3	8	4	3
I FIND IT DIFFICULT TO ANSWER	14	18	33	31

dent on the category of respondent. Residents of the district who were born in Moscow, more than any other category of respondent, stated that the people that live there are the same as them, i.e. that they we born in Moscow (36%). Those who live in the district but were not born in Moscow and came more than 15 years ago, most frequently believed (33%) that people like them primarily live in the district.

Guests most frequently (about one third) did not have an answer to this question. Among Muscovite guests who had an opinion, the most common answer was that people “born in Moscow” live there (23%), but almost as many said people who “came to Moscow more than 15 years ago.” Among the guests from outside Moscow who agreed to answer, the opinion that there are people who arrived less than 15 years ago dominated. More often than all other categories they stated a period of residence in Moscow of 2–5 years (12%), followed by Muscovites — guests and “owners” of the district (7%).

The above results clearly show that the assessment of such seemingly “objective” facts as the composition of the population by period of residence in Moscow, actually depends on the length of residence. This clearly shows the impact of general social and psychological laws, with the views of each social group being defined by its self-perception, which is to a great extent contingent on its social experiences and the underlying circumstances of its formation. Another factor is aspirations. We can assume that for many visitors it is a desirable goal to gain a foothold in Moscow. For this reason, visitors in contrast to “native Muscovites” and those who have lived here for a

long time do not consider the “natives” as the main group in the district's population, and instead assign the highest prevalence to those who came 5–15 years ago.

The most dramatic difference in responses to the question “who lives here?” was found in relation to the proportion of “native” Muscovites living in the district. The assessment given by those not living in Moscow from birth, although for a long time (two thirds of them have lived in the city for more than 15 years), was more than two and a half times lower than that given by “native” Muscovites. In this case, the difference between the assessments of the same two groups of the proportion of non-native Muscovites who have lived there for 2–15 years, is insignificant. We consider this to be a consequence of the importance of the status of “native Muscovite,” which leads “natives” to assert their leading role in the district, and “non-natives” to understate it, putting themselves in first place.

From the total amount of opinions, it can be concluded that more than 60% of those living in the periphery zone, more than 40% of Muscovites who are there temporarily, and over 33% of non-Muscovite guests stated that Moscow's population is primarily sedentary, having lived in Moscow for at least 15 years.

Other data from the research also show that the population of the surveyed zone of Moscow is predominantly sedentary. Among those born in Moscow, less than 14% have lived there for less than 10 years. Even people younger than 40 years of age indicated in more than 70 cases out of 100 that they have lived there for at least 10 years. Typically, in both the category up to 40 years of age and the category over 40 years of age, women more frequently indicated that they have been living there for over 30 years, and men more frequently indicated that they have lived there for less than 30 years. Men demonstrated a lower connection to the area. In the age group up to 40 years, half of them would prefer to live in the district and occasionally go to other places, whereas only 27% would like to live there and never leave. Women under 40 years of age were less willing to live in the area and go to other places (40%). They were one and a half times more likely than men (38% vs. 27%) to want to live there without leaving. Among men older than 40, the ratio of those who wanted to live there and leave occasionally compared to those who wanted to live there continuously was 47% vs. 33%, whereas the ratio for women in this age group was exactly the opposite at 34% vs. 48%. Material status is strongly associated with age. The older generation, which is dominated by pensioners (and among pensioners women dominate), is much poorer than the younger generation, where those who work dominate. For this reason we obtained the result that the elderly population (which is also less well-off and with a greater proportion of women), and has lived in the district longer, also most frequently (43%) expressed the desire to live there without going anywhere else. The more well-off (who are younger and include a greater proportion of men) would prefer to live in the district and go to other places as needed.

* This section of the research is based on data from a large-scale survey of Muscovites residing in the zone denoted in the project as “the periphery of Moscow,” as well as focus groups with residents of four districts included in this zone.

Conclusion: The City and its Flow

The comprehensive idea of urbanization as a worldwide historical process is entirely based on a notion of movement. Apart from the literal transportation of people from rural territories towards urbanized area, it is an idea of extending urban lifestyle and its inherent dynamics to the areas beyond the city core.

One of the common metaphors for movement is an image of flow — we look at the Moscow's urban fringe keeping this idea in mind.

Data analysis of sociological surveys show that social processes in Moscow are mainly static. Regarding the object of investigation — the “periphery” of Moscow (the area in between of the Third Ring Road and the Moscow Ring Road) — it has not changed a lot since 1960–1980, as opposed to the city centre. This regards not only qualities of inner social communication, but also the urban planning situation. Further, in addition to the high level of social stability in this mass, there have been found a common tendency to preserve status quo in sub-cultural communities.

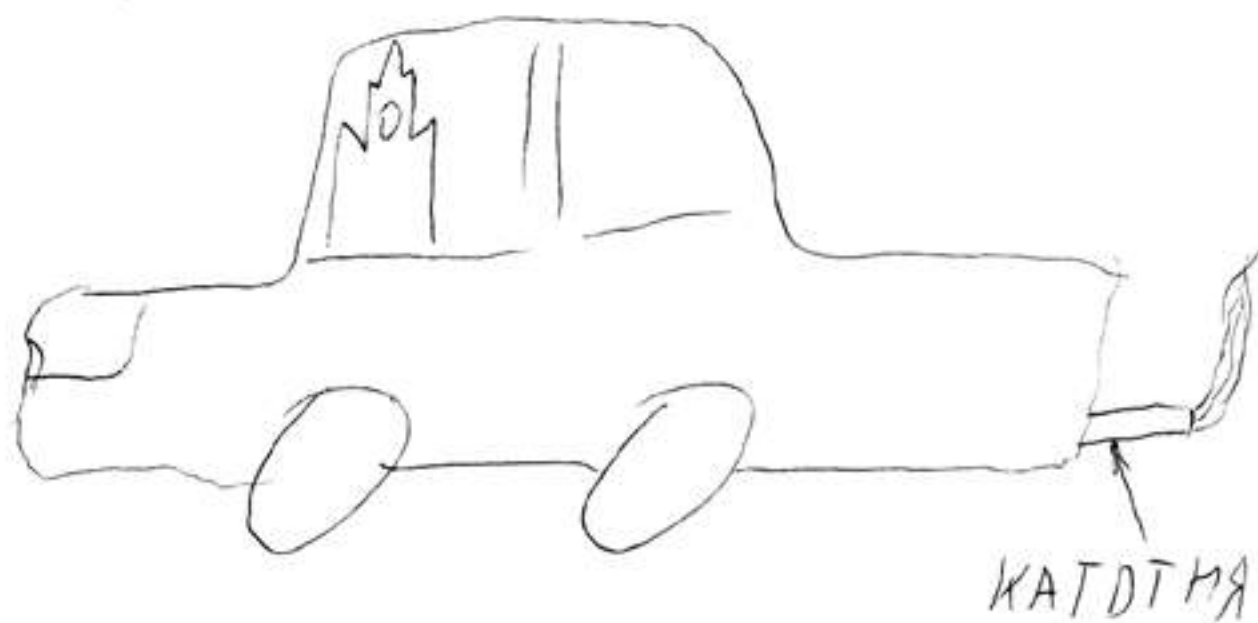
However, there were also found elements of flexibility and motion. First of all it is citizens' ability to pass beyond the borders of everyday routine, and at the same time it is physical transportation, ability to move outside of the familiar environment.

Based on the research outcomes, four elements of Moscow sociocultural environment are foremost relevant to the concept of static and fluid.

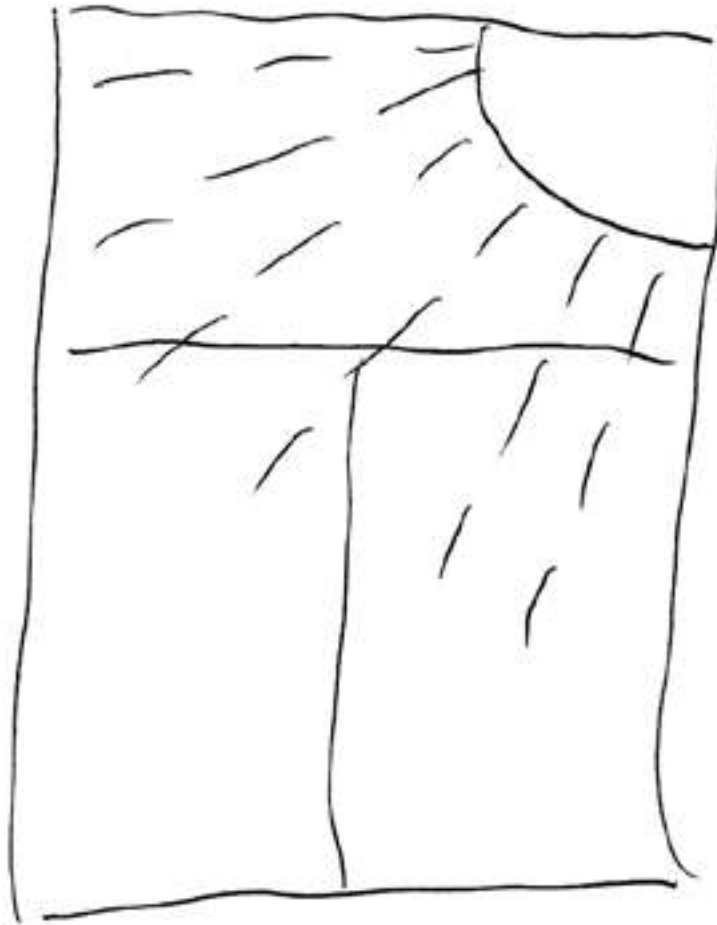
- A Representatives of avant-garde artistic subcultures. Moscow's city centre and its second periphery (further beyond the Moscow Ring Road) is changing and developing due to the efforts of this group
- B Muscovites, who used to be called “representatives of the creative class”. This kind of social formation exists only within those moments when people collectively venture to go beyond the political routine and create an action like demonstration, physically fill the city space and at the same time flood the cyberspace of internet with intellectual activity.
- C Active Muscovites, free in movement, flexible and belonging to actual world flows. In recent years they have formed migrants flow from Russia. They are not physically present in Moscow, but stay deeply connected with Muscovites, being involved in intellectual and political life of the city.
- D Visitors, the most mobile element of the Central Asian and Caucasian societies, who come to Moscow looking for employment, occupation progress. They are physically spread around the city and suburbs, but their presence in Moscow spaces is limited.

Moscow is affected by the conflict between “static” and “fluid.” Dynamic elements usually actively grow and evolve in the short perspective. Then, a period of stagnation, and previously free movement turns into regular, typical (e.g. commuter) shuttle movement. In the long run, it could transform into an absolutely static object. In the light of this immanent dynamics it is necessary to help the social movements in order to create comfortable conditions for all actors — both for those who keep it going and for those who host mobile elements of society.

Вот, где я живу



Вот где я живу.



Вот где я живу.

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**Valentin Bogorov,
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Transport and Social Networks: Motion and Emotion

1 From Single Factors to Trend Analysis

Big data is a layer of urban milieu, the 4th dimension of the city, its natural derivative and a new research tool.

Growing 4D-suburb (social media), self-tuning urban communities and collaborative consumption gradually conquer metropolitan areas worldwide, Moscow urban area inclusive.

In Moscow big data analysis is hardly used in urban development planning. Data processing and analysis of frameworks remain undeveloped.

Research provides examples of how new types of data reveal unknown properties of the spatial organization of the capital and how they help to support or disprove existing preconceptions of the city.

Among the most interesting types of urban data are: cell-phone signals and semantic streams produced by social media users; both are real-time data flows.

2 Cell Phones Instead of Passengers

Data produced by cell phone operators has recently been discovered by urban planners as one of the most powerful sources of information. Cell phone special tracks help them to reveal population mobility patterns, so-called “space-time choreography” of the citizens¹.

State authorities in Singapore, Istanbul, Lisbon, Amsterdam, Rome, and some other world cities have collaborated with local telecommunication services providers to get a dynamic real-time mobility map that is used in the traffic control systems, uncovering bottle-necks in urban transportation networks.

Such an approach appears to be pretty reliable; it is also way cheaper than video-registration data coming from traffic control cameras.

1 Hagerstrand T. Space, time and human conditions. – 1975.

In this research, for the first time ever in Russia, geospatial services of a mobile operator were used to analyze patterns of urban mobility. They have been provided specially for this research by OJSC “MegaFon”.

The Deceptive “Practice of Everyday Life”²

The stereotypical image of Moscow, based on the everyday experience, can be reduced to a very simple sketch:

² Michel de Certeau, *The Practice of Everyday Life*, University of California Press, Berkeley and Los Angeles, California, 1984.

- Moscow is a super mobile city, most of its population is on the go during the day.
- Workplaces in the capital³ are situated in the city center to which a huge stream of people comes from the dormitory areas.
- Radial highways and underground lines are overcrowded; traffic infrastructure is within an inch of collapse.
- Residents of the Moscow Region mainly work in Moscow. Together with newcomers from the other regions and countries they are the cause of the extreme pressure being put on the traffic infrastructure and the urban environment.

³ According to some records, up to 90% of them
ria.ru/moscow/20121019/904375380.html

Big data analytics can considerably reshape such a perception, if not totally destroy it.

Static Moscow

The active mobile part of the population of Greater Moscow involved in commuting is the obvious minority. More than two-thirds of Moscow residents stay at home or in the immediate vicinity (“zero moves”). On the periphery of the city and in the Moscow Region the percentage of those who don’t leave home is even higher and is about three-quarters of all movement ⁴. So it is that one-third of the residents of Greater Moscow who are “in charge” of traffic jams and urban transport overload. It’s difficult to imagine what the traffic infrastructure of Moscow could look like if the number of working trips doubled.

⁴ We can count the number of so-called ‘zero moves’: tracks that do not go further than 1 km from the origination point.

The Mythic Invasion to the Center

Every morning population of the urban area goes to work, but where to exactly? Let us take 100% as the number of all the long moves in the city and let’s evaluate the role of every stream in the system of two concentric rings around the city core: the dormitory periphery (from the Third Transport Ring to Moscow Circle Road) and the Moscow Region (outside of Moscow Circle Road).

Radial streams between dormitory districts and the center provide only a quarter of all the morning moves in the agglomeration. The case in hand is not only about the centripetal moves, but also about the centrifugal ones, and forced transit through the center (so called “excessive indirect routes”). The itineraries from the dormitory districts to the center represent only about 10% of all the moves within the agglomeration. To this amount we can add 5.4% of people who go to the center straight from the Moscow region. So, about 15% of all movement in the Moscow urban area have the center as the final destination point. In other words, the amount of people involved in those moves is just about 4.5% of the population of the Greater Moscow area.

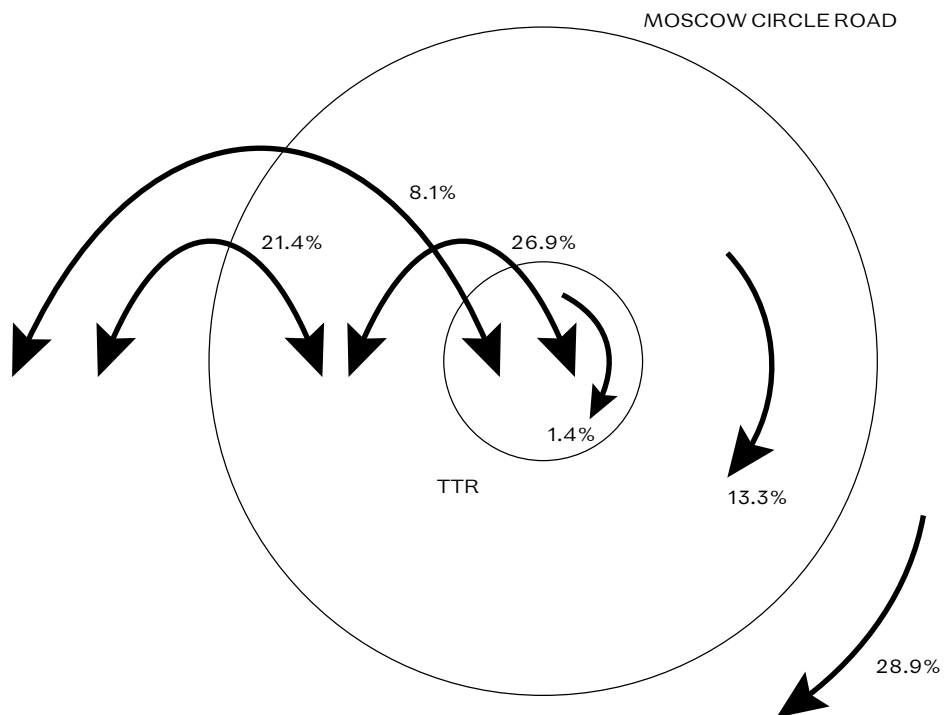


FIG. 1 Interrelation of itineraries of the citizens, %. “Zero moves” are not included. Moscow agglomeration, morning peak hours of a day in September, 2013.

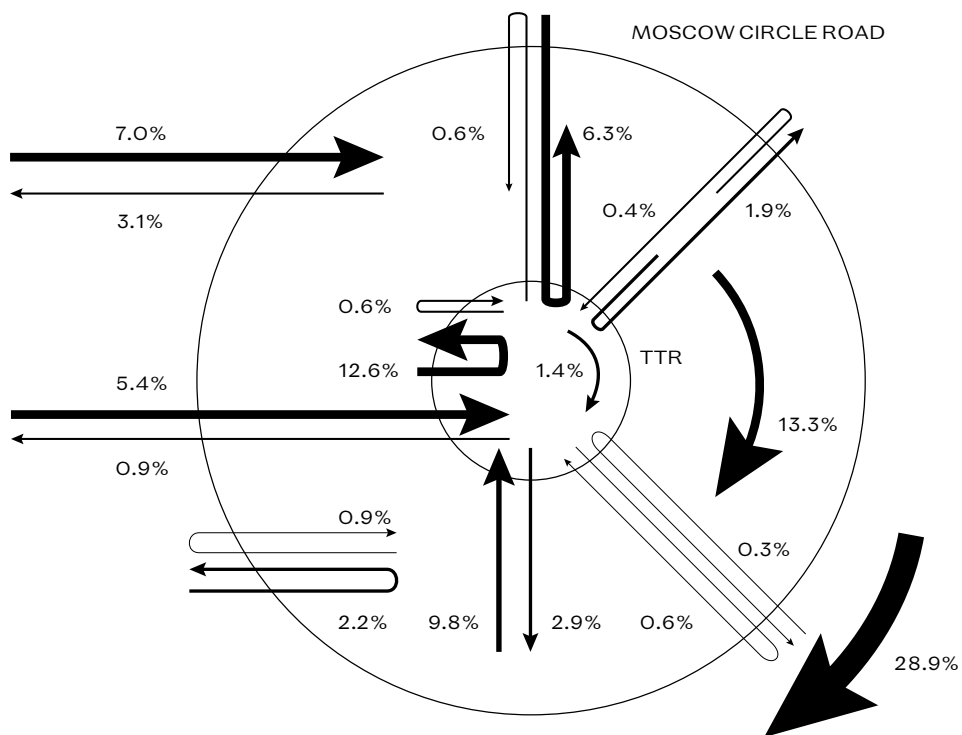
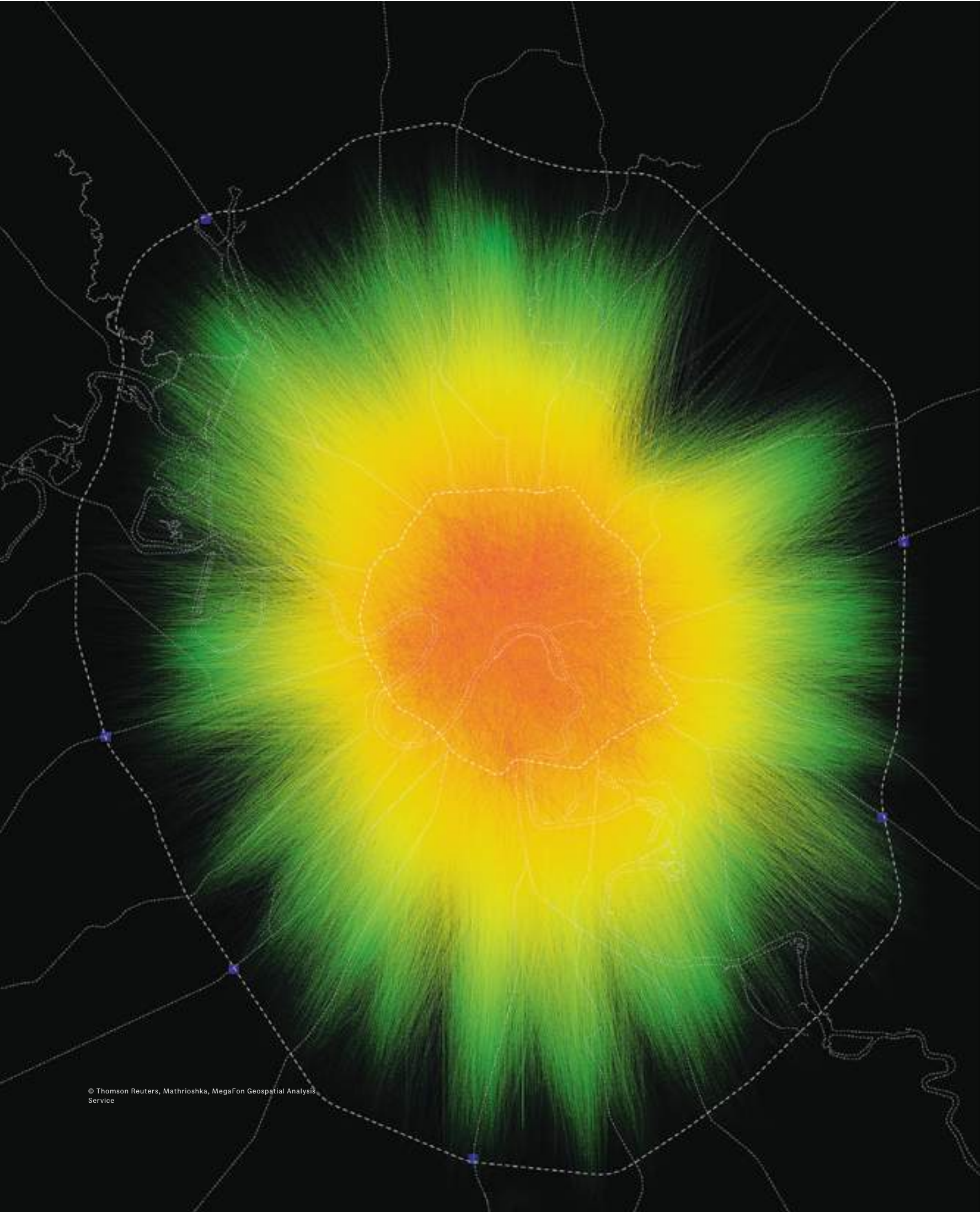


FIG. 3 Centripetal streams, Moscow within the Moscow Circle Road, morning peak hours of a day in September 2013.

FIG. 2 Interrelation of centripetal, centrifugal, transit (excessive indirect) and chord streams within the Moscow agglomeration, morning peak hours of a day in September 2013.



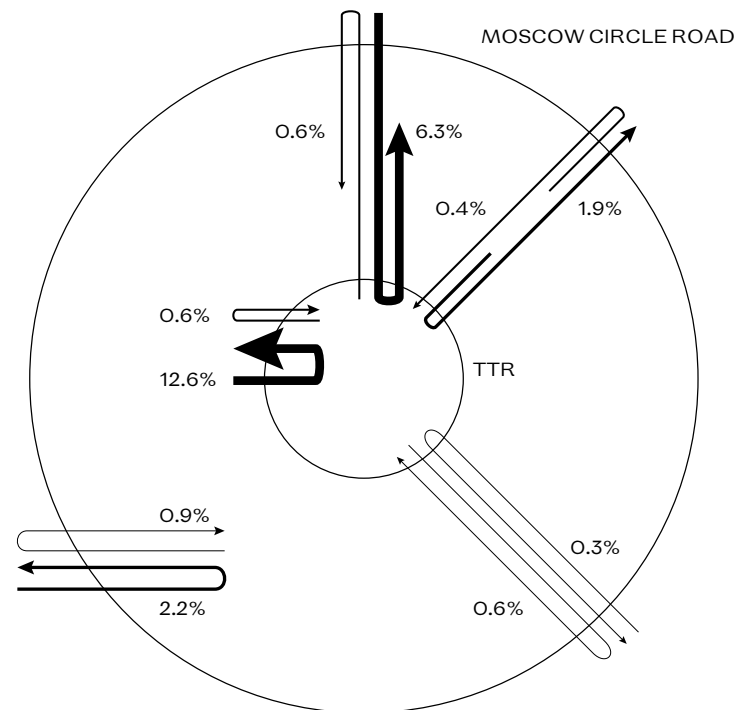
The real pressure on the center is higher. About one-fifth (12.6% from Moscow and 6.3% from the Moscow region) of all morning commute in the urban area is related to excessive mileage “earned” on indirect routes — when the population of the dormitory areas (or suburbs) go to the city center just for connection to a different transportation line (service).

Chord Shortages

The quality of transportation network in the agglomeration with a certain degree of error can be evaluated by a share of excessive indirect routes in total amount of movements. The more is the share, the worse transport network corresponds to the needs of the citizens.

In the Moscow agglomeration, excessive indirect trips make up more than 25% of all movement. It is clear that such a large number shows that Moscow's transport infrastructure is far from being adequate and that there is a lack of direct main roads. It is due to excessive indirect routes that radial highways and underground lines are overloaded. In fact they accept not only the citizens who go to the center, but also those who move within the periphery. These citizens can cross the ring roads while making a transfer in the center or stay within the zone of the “Third Transport Ring – Moscow Circle Road”, but their itineraries will go through radial highways regardless. Radial highways are getting more and more overloaded as they are being used as an alternative to a weak chord transportation network. Nothing could be as remote from the real needs of the city as radial road widening projects rooted in primitive intuition lacking deep data analysis. As data shows, the centripetal movements account for 40% of all trips across the agglomeration. Half of them are centripetal excessive indirect trips. It means that the load on radial highways can be reduced by half if to develop properly the network of chord routes.

The issue of the absence of direct highways is even more essential for the



metro. About a half of all the moves in Moscow are underground, and this amount rises to 75% of the total moves including excessive indirect trips. The tube is obviously not coping with the pressure. The results of a semantic analysis of social media content support this idea. A large part of the negative feedback from the dormitory districts is taken up by moans about the excess of cars and passengers on underground platforms.

How Independent Is Moscow Region from the City of Moscow?

Trips from the Moscow region to Moscow make up 12.4% of total travel-to-work movement. Let us add to this amount 6.3% represented by excessive indirect trips from the City of Moscow to the Moscow Region via the City of Moscow. Consequently, only 18.3% of all movement in the agglomeration start in the Moscow region and cross the territory of Moscow one way or another. Only a quarter of them finish in the city centre, while the others have nothing to do with it.

According to the results of the research, the connection between the Moscow region and the city of Moscow accounts for one-third of total radial movements crossing Moscow ring roads. But the periphery beyond Moscow Circle Road is more about internal connections that give about one third of total mobility in Moscow agglomeration. The routes mainly last less than half an hour and don't cross the borders of urban areas and their nearest suburbs.

Fake Suburbanization

The Moscow Region and the dormitory districts of Moscow are responsible for a great number of movement — about 40% of all streams in the agglomeration⁵. However, itineraries in the periphery are comparatively chaotic and don't form poles of centrality. In this case can we refer to the Moscow periphery as to a mature city or it is just completed by a set of functions — residential, industrial, infrastructural — which are represented in the territory of the city by enclaves: residential communities, industrial zones, transport junctions?

Each of these enclaves can chaotically attract population from different parts of the agglomeration without forming a community or a central place. Spatial segregation of residential, industrial, infrastructural and other functions of Moscow periphery reveal the features of the Fordist city or "Gosplan" quasi-urban space.

The absence of significant neighborhood and agglomeration effects in spite of existing wide range of connections in the periphery is a clear sign of fake suburbanization, when infrastructure doesn't create a frame of urban space, but resembles a "flea jump." While in the Moscow region populated areas are fully developed urban communities, dormitory districts in Moscow are first of all points of "departure" and "destination", which hardly ever form their own hinterlands.

Donors and Acceptors

The starting points of the itineraries are spread over the dormitory districts and the center of Moscow, so in the morning the whole Moscow is in motion. Leaders in the volume of outgoing streams are shining examples of the Moscow periphery districts (Tsaritsyno, Pechatniki, Tekstilschiki, Western Degunino, North Medvedkovo etc.). "Destination" points are normally concentrated within the zone of the TTR, and still the periphery accepts small, but numerous streams of citizens. The magnets for them are the outward routes like Leninskiy Avenue, Leningradskoe Highway and

5 In the morning less than 1.5% of the population of greater Moscow moves within the TTR.

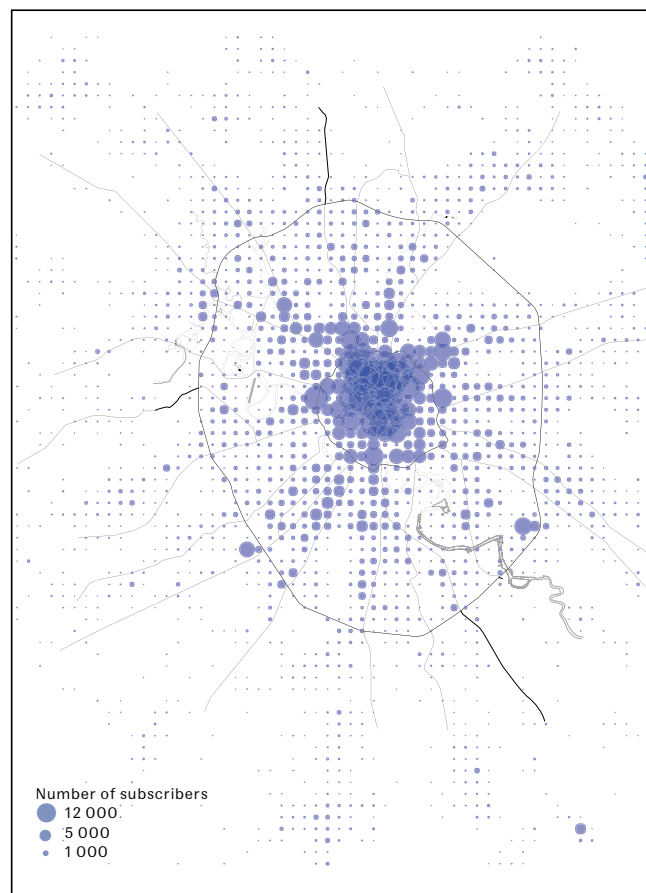
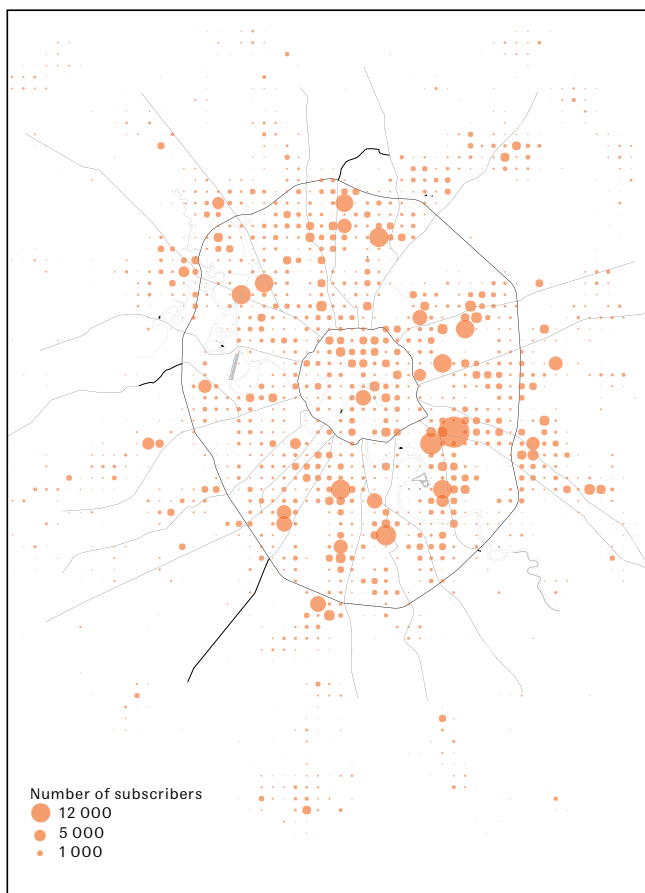
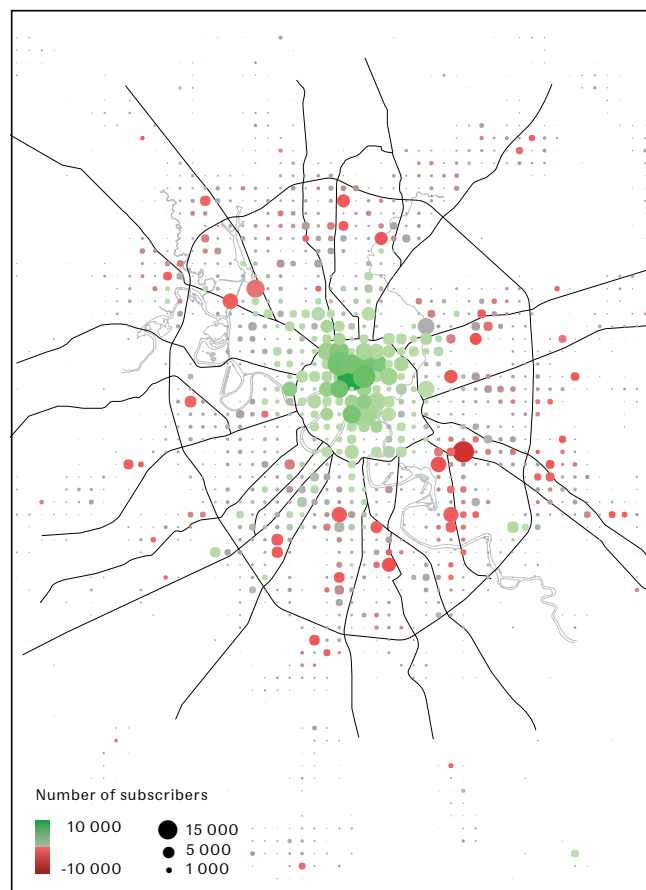


FIG. 5 Starting points of the morning itineraries of the Moscow residents. Morning peak hours of a day in September 2013. Note: The map shows signs for all the “tiles” (cells of 1 km²) with over 50 people streams. Size of the circles is proportional to the number of subscribers.

FIG. 6 Final points of the morning itineraries of the Moscow residents. Morning peak hours of a day in September 2013. Note: The map shows signs for all the “tiles” (cells of 1 km²) with over 50 people streams. Size of the circles is proportional to the number of subscribers.

FIG. 7 Balance of working commuting in cells of 1 km² (the difference between incoming and outgoing flows). Morning peak hours of a day in September 2013. Note: The map shows signs for all the “tiles” (cells of 1 km²) with over 50 people streams. Size of the circles is proportional to the total of incoming and outgoing streams.

FIG. 8 Usage of the Moscow traffic infrastructure by residents of the Moscow Region: excessive indirect moves within Moscow Region through Moscow, without including “zero moves”. Morning peak hours of a day in September 2013.



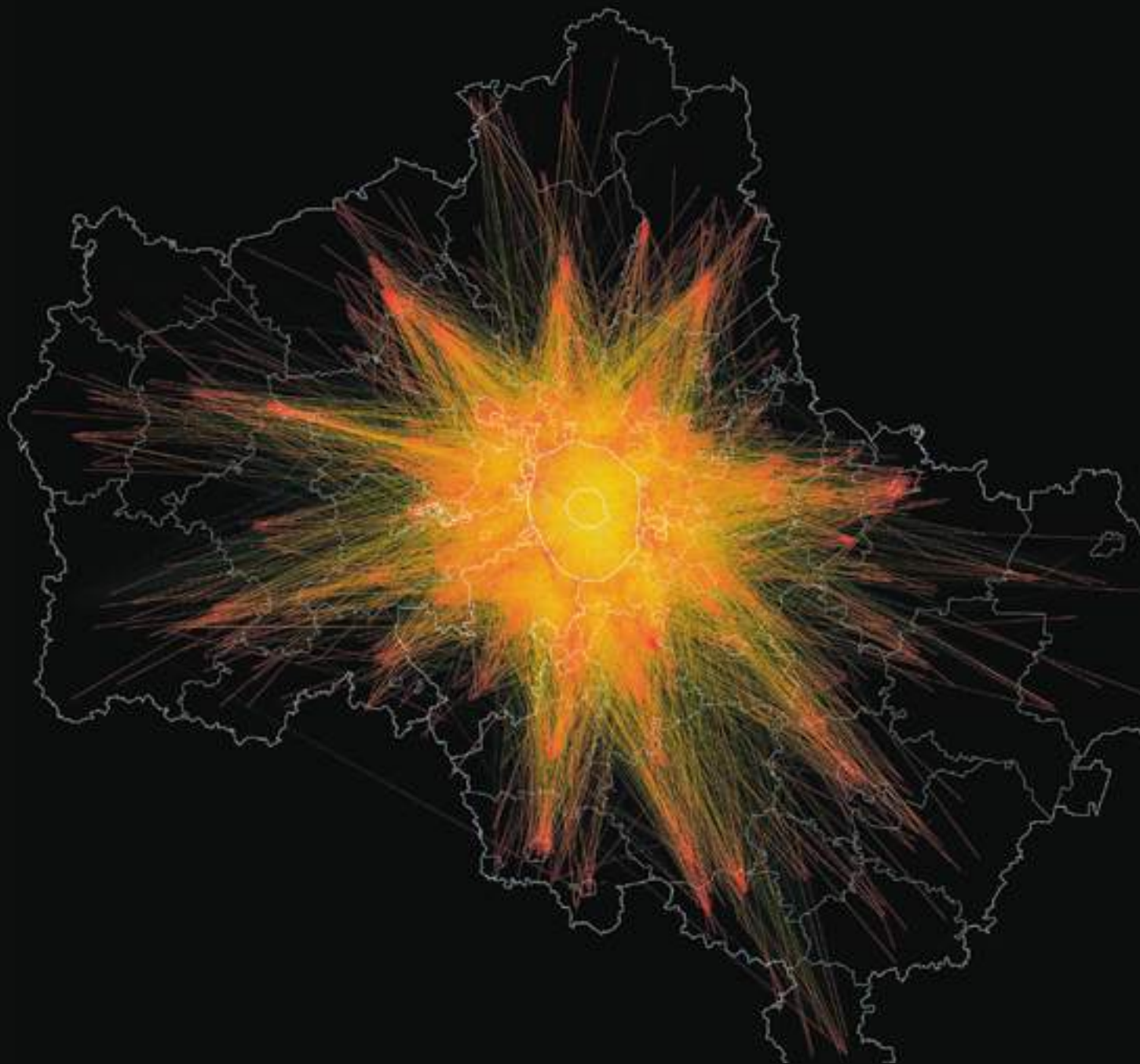
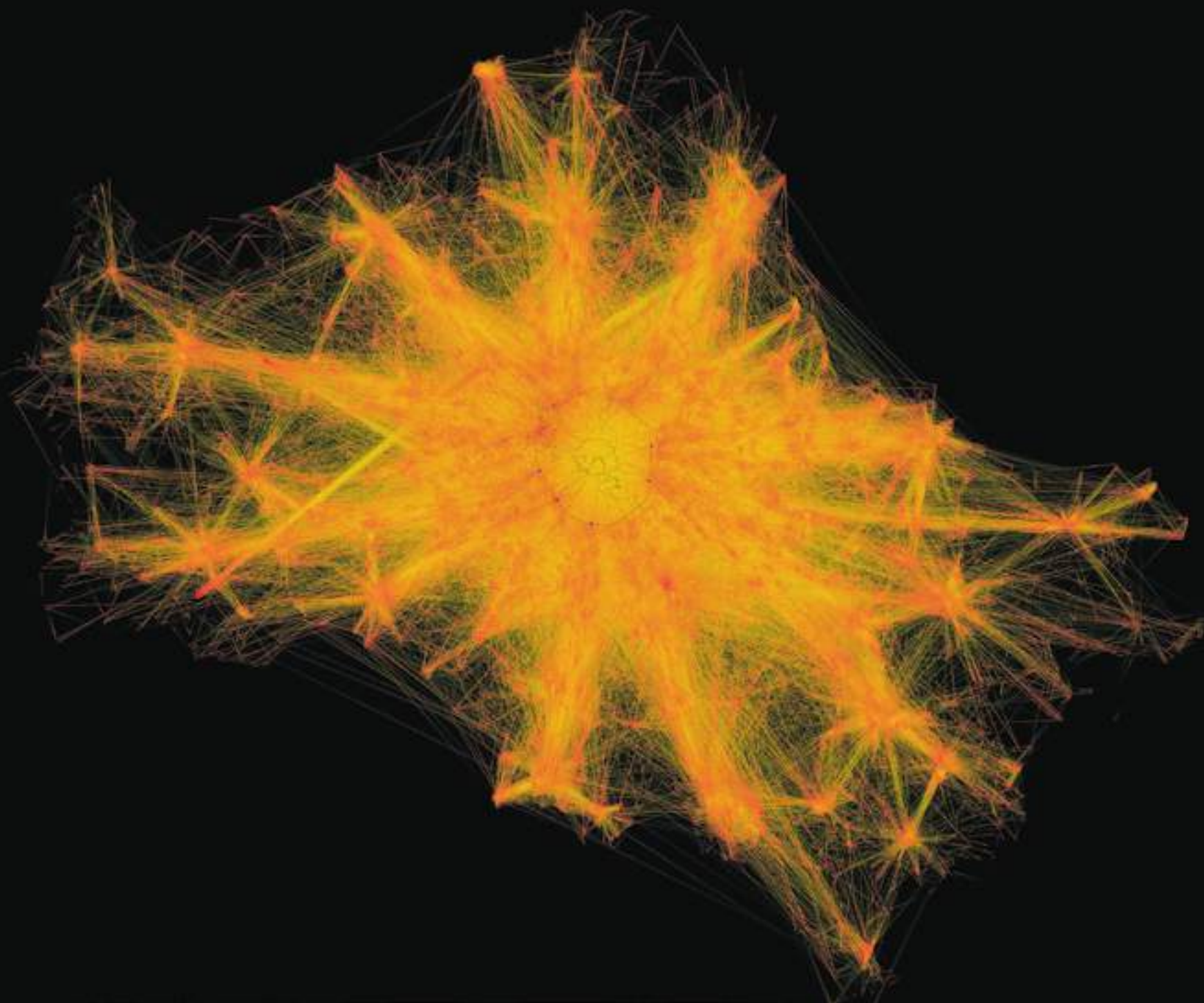




FIG. 9, 10 Moves within the Moscow Region.
Duration of the journey: all the moves (100%)
and moves lasting less than 30 minutes (63%).
Morning peak hours of a day in September 2013.
Note: Figures indicate the total of all
movements. The filling-in of Moscow within the
Moscow Circle Road is because of indirect trips.



other axes where the job marketplace is concentrated. There are some examples of the formation of commuting magnets independent from the highways, like the area at the border of the districts of Kapotnya and Lyublino (industrial zone), or Schukino, but they are few. Low transport connectivity of the periphery directly produces not only traffic problems and overload of the radial highways, but also the unequal development of different zones in the city. The development of direct connections would possibly end the disease of the Moscow periphery, the fake suburbanization, and create centers of crystallization of mature urban space in the dormitory districts.

3 Urban Talk Exchange

The analysis showed that only a small part of social media content is connected with urban issues. At the same time the amount of such information is considerable enough and it is being produced on a regular basis.

The Internet Instead of an Urban Community?

Urban geographers, social and cultural scientists usually agree with the statement that it is hard to find any bright local communities, so-called vernacular regions in Moscow⁶. Unlike other big cities, Moscow is relatively faceless, and one could hardly encounter something like New York's SoHo (South of Houston) or Tribeca (Triangle Below Canal Street). According to Vladimir Kaganskiy, the people of Moscow are "spatially irrelevant"⁷.

Is it true now, in the days of social networks engaging a significant share of society? Does social media become a platform for the development and growth of urban communities? We can try to answer this question by using semantic analysis of social networks data streams.

Security and Safety

According to Jane Jacobs, "Public peace — the sidewalk and street peace — of cities is not kept primarily by the police, necessary as police are. It is kept primarily by an intricate, almost unconscious network of voluntary controls and standards among the people themselves, and enforced by the people themselves"⁸.

It is remarkable that in city livability rankings, provided by companies like Mercer or the Economist Intelligence Unit, safety is one of the key criteria, but it is determined only by the crime rate, and natural and political risks. Such evaluations, while useful, fail to explain in depth the issues of security and safety in the city, as emergency data doesn't reflect the real level of public tranquility and comfort. A geography of emergencies in Moscow according to the results of social media semantic analysis differs a lot from the "objective" data generated by police or by the pool of emergency calls. Semantic references to the center of Moscow are mostly neutral while official data says that it's a core of all accidents in the city.

The amounts of positive and negative references to Moscow center in social networks are quite large and comparable by size. Such a balance isn't something usual for Moscow periphery. There are some "negative spots" in the zone between TTR and Moscow Circle Road: Pechatniki, Tekstilschiki, Lyublino, Yasenevo. On the contrary, Cheremushki stands out in the south-west of Moscow for positive sentiments.

Generally, the layout of the semantic space of the city turns out to be more complicated and more diverse than the geography of emergencies, which

6 "Vernacular region" is a locality with a strong sense of local social and cultural identity. Web: www.geogr.msu.ru/science/diss/oby/puzanov.pdf

7 Kagansky, Vladimir. Невменяемое пространство // Отечественные записки, 2002, № 6 (7).

8 Jacobs, J. The Life and Death of Great American cities (1961).

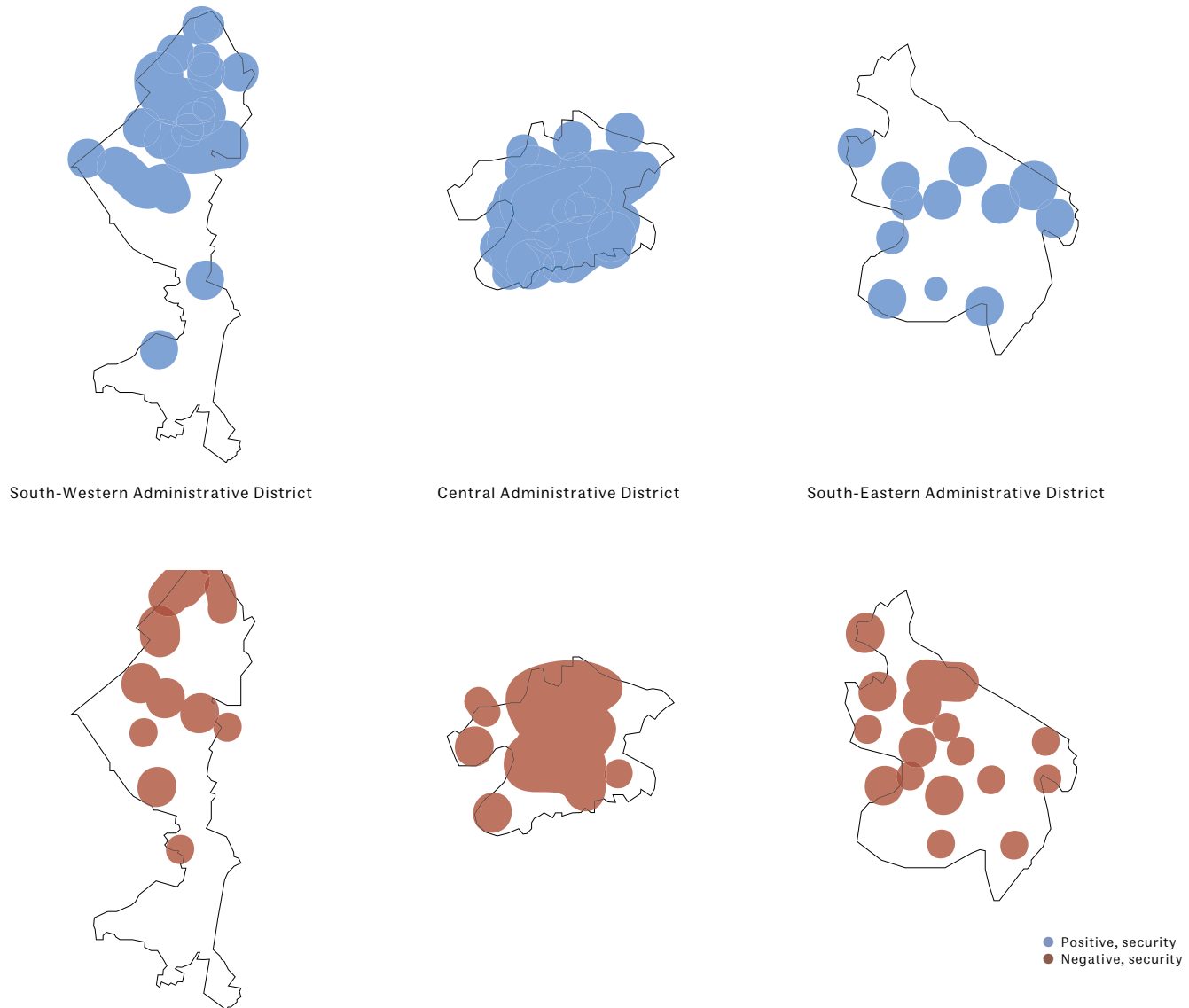


FIG. 11, 12 The areas mentioned in terms of physical security and threats. Central, South-Western and South Eastern Administrative Districts of Moscow, August-September 2013.

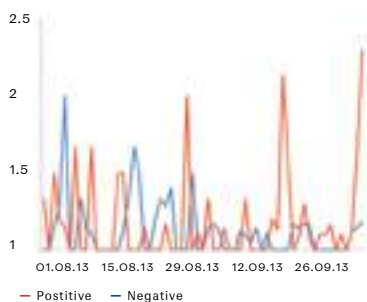


FIG. 13 Number of positive and negative references per placename. Central, South-Western and South-Eastern Administrative Districts, August-September 2013.

means that Muscovites are getting selective about their urban space.

Constantly Anxious, Unpredictably Praising

The semantics of the relationships of Muscovites to the urban space conforms with strictly defined laws. As a rule, negative emotions have a stable geography. Negative mentions are connected with a small amount of set localities. Positive evaluations are on the contrary spread in space and are not attached to any certain placenames in the city and they often change their geography.

Negative sentiments normally prevail. There are two times as many negative characteristics in the citizens' messages as positive. Semantic geography also varies according to the season, the day of the week or the time of day. It also changes drastically from one social group to another.

Compared to August, for example, there are much more negative characterizations of localities in September. One can also find less positive references to parks and recreation zones. Along with the number of negative reviews the quantity of positive sentiments grows, mainly due to references to jobs, cafes, restaurants, shops etc. Positive references are dispersed, but the negative ones — concentrated and tightly connected with a set number of localities.

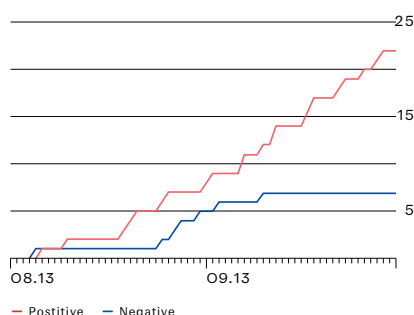


FIG. 14 Dynamics in diagram: positive and negative references to Chistoprudny Boulevard in social networks, August-September 2013.

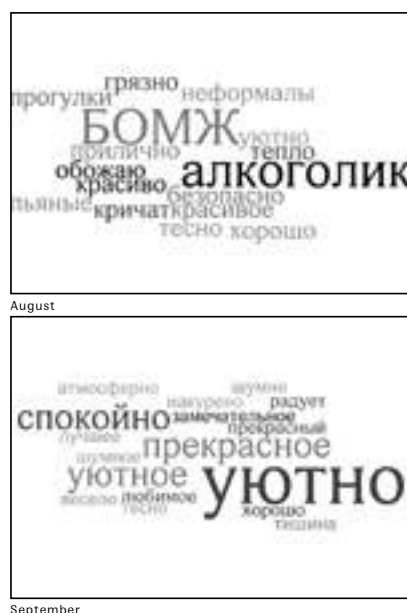


FIG. 15 Dynamics in tag clouds: references to Chistoprudny Boulevard in social networks, August-September 2013.

Most positive sentiments are connected with leisure regardless the season. This is the main reason for their spatial diversity. Vacationers consume urban space actively and creatively producing enormous amounts of positive emotions about urban sites. Negative sentiments have pretty stable geography and concentration across all the seasons. Their main source is travel-to-work inconveniencies and regular everyday issues⁹.

Chistoprudy Boulevard: Trend Changes

Chistoprudy Boulevard represents an interesting example of the shift from negative to positive sentiments throughout the year. In summer most boulevards and avenues yield in the number of positive sentiments to gardens and parks. In social media, summertime boulevards often have negative connotation in connection with traffic, large number of homeless people, noisy crowds, and the like. But in autumn people become more positive about them. The study shows that there are two distinct social groups commenting about boulevards — locals and those who work nearby. Positive references are produced by the working crowd spending its lunch breaks or spare time after work at the boulevards; negative sentiments belong to locals. Working people dominate social media in autumn, and locals prevail in summer, which can explain why Chistoprudny Boulevard is the object for complaints in summer and praised public space in autumn.

“Well” Means Comfortably, “Badly” Means Anything You Like

Muscovites “complain” about the city for many reasons, and praise it without going into details. The citizens do not often refer positively to a place’s high level of safety, as they take it as the norm, and they use general notions like “comfortable,” “nice,” “OK,” and “cosy.” If they refer to problems connected with the low level of security and lack of comfort, they use numerous and various definitions.

In the course of analysis we have specified 250 thematic blocks of words from the categories of negative characteristics. Most of them are related to distinct problems. Among the causes of negative references there are emergencies (road accidents, attacks, murders etc.) and complaints about the quality of the environment (dirt, unpleasant smells and so on). Particularly often, we came across references to “undesirable” groups of citizens which include homeless people, immigrants, and others¹⁰. This category is inferior only to that connected with criminals, and it predominates in some dormitory districts of Moscow¹¹. The analysis of negative references to urban environment posted by Muscovites in social networks isn’t just a way to identify local problems and emergency, but also a touchstone for social conflicts analysis (e.g. intolerance and xenophobia).

Conservative Perception of the Centre

The borders of Moscow’s center are perceived very conservatively, but the real periphery for Muscovites are two narrow stripes along Moscow Circle Road in the South and North of Moscow. A semantic gap has been formed between them in space — the periphery which isn’t noticed or even discussed.

The references in social networks reveal clearly identified clusters: the city core and so-called “starting points,” which are significant for the active web users: “media-quays” (Strelka) and lanes of the western part of Balchug Island, and also Bolotnaya Square and nearby territories.

However, those “starting points” are inferior to the ring line of the underground in terms of frequency of references.

9 It can be proved by the topics of negative references in September are by large, related with traffic.

10 “Undesirables” in terms of American social scientist W. Whyte (Whyte W. H. The Social Life of Small Urban Spaces. – 1980).

11 The research includes only Central, South-Western and South-Eastern Administrative Districts of Moscow.

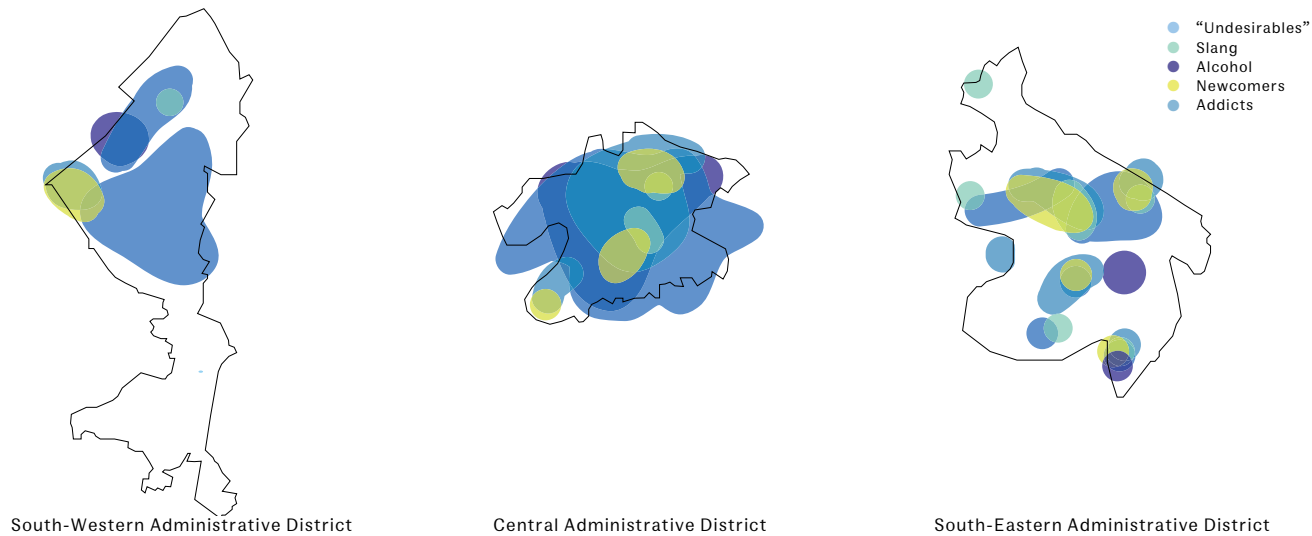


FIG. 16 Areas of references to particular subjects (negative opinions) Central, South-Western and South-Eastern Administrative Districts, August-September 2013.

The undisputed leader in the number of statements appears to be the center inside the Boulevard Ring. Perhaps the infrastructure of public transportation, metro most of all, is the real reason for such a conservative image of the center.

Semantic Gap and the Real Periphery

The space between central and peripheral “extremes” is a semantic gap — a large belt of dormitory Moscow districts that are mentioned neither as center nor as periphery. This is clear indication of so-called fake suburbia: vast land without clear identity squeezed in between city center limited by Boulevard Circle and two narrow stripes of periphery in the north and south-east of Moscow (along Moscow Circle Road).

“Periphery” as a Verdict

Periphery is usually connected with the most disadvantaged and remote areas of the city. This term has an emotional burden: periphery is a place which is “bad” and “far”.

In Moscow, the dormitory districts are mostly mentioned as periphery, but sometimes parts of central core are also mentioned. At the same time some dormitory districts are sometimes defined as central territories. Among such “transitional” placenames, which are mentioned simultaneously as the center and the periphery, there are such groups as (by the percentage of references in the first or the second context):

- “Central” references to periphery: Moscow Circle Road (33% of references is “center”), Baumanskaya metro station (25%), Kashirskoye Highway (33%)
- “Peripheral” references to the central toponyms: Tverskaya St. (7% of references as to the “periphery”), Prospekt Mira (34%), Sadovoye Ring Road (34%), Leninskiy Avenue (40%).

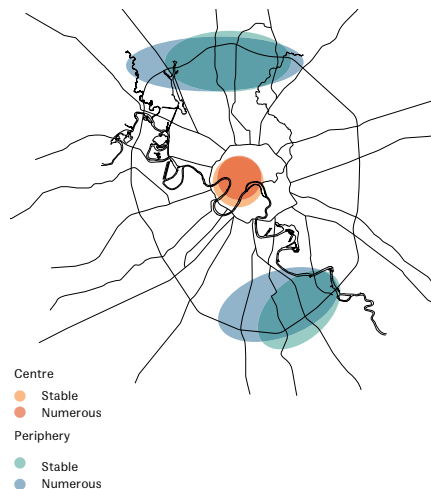


FIG. 17 Stable and numerous mentions of center and periphery, August-September 2013.

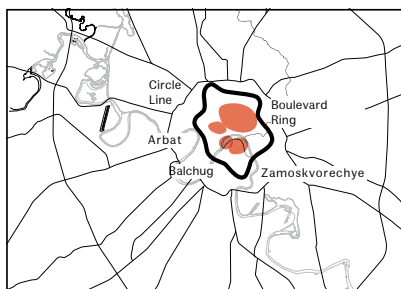


FIG. 18 Key clusters of center references, August-September 2013.

The “centrality” in the characterizations of a locality is connected primarily with the indication on the nearness to the center – the main factor of attractiveness, which is mentioned in ads. When a part of the center is called the periphery, this points to the negative attitude to the quality of urban environment and the services in this certain place (we underline services, because in the majority of cases placenames mentions are all about the point objects of infrastructure and service sector).

Urban Space Perception: Attending and Understanding

Positive references to the center mainly deal with the level of satisfaction of services, and the negative opinions of the periphery are connected with the low quality of the environment. Does this mean center is perceived as a number of objects, while the periphery is perceived as urban environment and space as a whole? The spread of the central references over its territory indicates that it is perceived as a set of points or objects. In the semantic tag cloud of key central placenames, single objects (cafes, restaurants, shops) clearly predominate. Besides this, a large number of references to the center and positive opinions are made by users of the social application Foursquare, connected with the characterization of certain places (public and leisure items). Publications on these subjects on other platforms, VKontakte and Twitter, are also mainly connected with events and objects. Negative references are mainly linked to the quality of urban environment. There are not so many interesting objects and services beyond the TTR, and the total amount of periphery mentions is twice less than the number of references to the center. Muscovites just may not know the peripheral areas of the city very well. As Kevin Lynch, who popularised the idea of 'mental maps' said, "district" perception of the territory points to the poor understanding of the organization of the city, which is worse in this case, than knowledge of the city space, based on navigation, landmarks/nodes, paths and edges¹².

12 Lynch K. The image of the city. – the MIT Press, 1960. – T. 11.

Semantic Heterogeneity of Moscow: from "Space" to "Place"

The differences between the two types of attitude towards safety as a problem of a physical security/threat on the one hand and comfort/discomfort of the environment reveal a very interesting feature of Moscow space. "Spatial differentiation" may not be the right term for it, "heterogeneity" is. In the South-East of Moscow, negative references are clearly dominant. Most of them focus on the low quality of urban environment and discomfort. On the contrary in the South West: positive sentiments are mainly about urban environment; anxiousness there is based first of all on physical threats. As for the center of the city the positive mood is obviously dominant, and mostly related to the environment and its objects. Negative comments in the center are usually about emergencies. In the center positive opinions account for more than 60% of the total, while in the South-West, less than 40% and in the South-East, for only 11%. Splashes of positive opinions are registered in Maryino and Cheremushki though. Negative opinions of Moscow dormitory districts received from residents of some other parts of Moscow are often based on the "we-them" or "local-outsider" dilemma. Locals, playing the same game, would normally support positive images of their own community by reacting to the negative evaluations of some outsiders. Such a reactive "local patriotism" is characteristic of the South-Eastern zone. The district of Maryino is a shining example of it — it leads in the South-East in positive, as well as negative references. Despite numerous negative opinions from outside, the locals tend to describe their area quite positively.

Semantic analysis shows that social and cultural community is still very weak in Moscow, but it keeps trying to create local identity linking places to senses. The key differentiation factor so far is "a problem", not something with positive connotation, a particular landmark, cultural distinction, social habit or anything that could turn faceless "space" of Moscow periphery into set of "places".



FIG. 19 Tag cloud based on all references to periphery, August-September 2013.

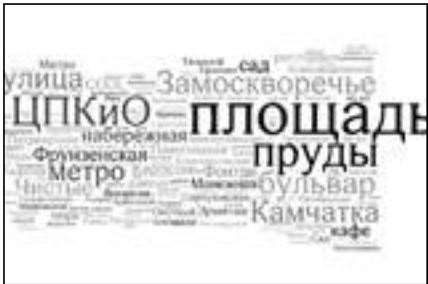


FIG. 20 Tag cloud based on the toponyms linked to “center” thesaurus

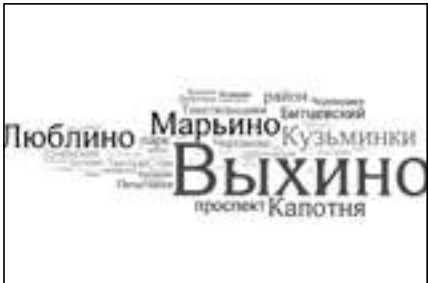


FIG. 21 Tag cloud based on the toponyms linked to “periphery” thesaurus



FIG. 22 Area and cores of central references by Foursquare app (4sq, positive references), August-September 2013.

South-Western Administrative District

Central Administrative District

South-Eastern Administrative District

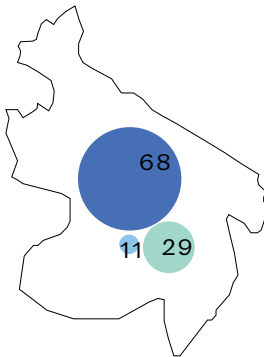
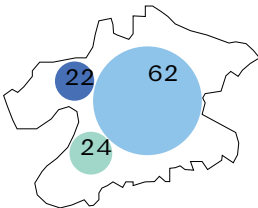
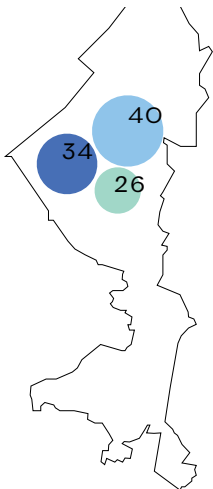


FIG. 23 The division between Moscow Administrative Districts according to the alternating characteristic of “physical security – safety/comfort”. Central, South-Eastern and South-Western Administrative Districts, August –September 2013.

4 Methods of Data Processing

1. The analysis of semantic streams of public information produced in social media (Vkontakte, Tiwtter, Foursquare).

Social media data analysis reflects invisible patterns of urban space perception.

The research is focused on two topics:

- mental borders and perception of city center and periphery;
- perception of urban space and real criteria of comfort and security.

Social media big data processing included four stages:

Collection

Social media data collection was done via open API of Vkontakte, Twitter and Foursquare and with a help of special algorithms. Subject references search was based on a system of special thesauruses.

Semantic analysis and geolocation

Semantic analysis was based on special algorithms (machine-readable news) and in large part was completed manually. Geolocation was based on mentions of geographic objects (indirect location).

Refinement

The mistakes and limits of the research were checked in some directions: references relevance, precise geolocation, semantic analysis data specification. Database refinement was supplemented with primary visualization analysis that showed clearly all inaccuracies and mistakes.

Visual analysis:

- infographics and maps: ArcGIS and Grasshopper;
- digital visualization: special software based on VVVV.

2. The analysis of big data produced by MegaFon Geospatial Analysis Services.

Geospatial data can be used to track urban mobility trends via different types of moves: by social groups, by direction, and by journey time.

Geospatial data processing included 3 stages:

Collection

The database for urban mobility analysis includes information on the first morning route of different groups of subscribers on one of the working days in September. Subscribers grouping helps to keep anonymity without a loss of details.

The routes were defined by their starting and ending points. So called “space moves” (direct lines connecting the starting and ending points of the routes) were specified using the data on ring road crossings (Moscow Ring Road and Third Transport Ring).

Refinement

Refinement stages: mistakes and limits check; out of Moscow Region moves removal; “zero moves” removal.

Visual analysis:

- infographics and maps: ArcGIS and Grasshopper;
- digital visualization: special software based on VVVV.

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S P A C E D

ECONOMY

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Balancing the Economy of an Unbalanced City

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1 Introduction

1 PPP-based calculation according to IMF data - Report for Selected Countries and Subjects, World Economic Outlook Database, October 2013, <http://www.imf.org/external/pubs/ft/weo/2013/02/weodata/index.aspx>

Moscow is a megacity with a population of 15 million, the world's 30th largest economy, which in terms of GDP (~\$440 bn.¹), is comparable to countries such as Sweden and Norway, and twice the size of UAE or Portugal. It is a city-state, one-fifth of the Russian economy, a city caught in the vice between global financial trends and the resource-based economy of the world's largest (in terms of area) country. It is also a mammoth population centre planned according to the templates of a Fordist one-company city clearly divided into the administrative centre, production zones and bedroom communities. The triumph of status and scale, the problem of an open (and still dependent) economy and the tragedy of spacial organization all contribute to the special character of the Moscow economic model.

2 Report on the execution of the consolidated budget of the Russian Federation subject and the budget of the territorial state off-budget fund at <http://www.findep.mos.ru/pages/959>

In general terms, Moscow provides its residents with the highest living standards and best quality of life in Russia. Average wages in Moscow are double the average for Russia and real estate prices more than double the Russian average. One of the key factors of such discrepancies is Moscow's capital status, which supports, among other things, its high budget revenue of about 140,000 rubles per capita per year,² or three times the average of other Russian cities. Moscow's economy today largely depend on macro-economic factors, such as inflation, the balance of payments, government spending and exchange rates, which are de facto beyond the city's control. The country's resource-based economy has prepared the ground for a Dutch disease, and its first victim has been Moscow, which also gains the most from the resource largesse. Inflows of foreign exchange earned by raw materials exports at a time of a poor investment climate, and inarticulate national economic diversification policies, have appreciated the national currency, pushed up production costs, undercut labour productivity and depressed the competitiveness of Russian companies. In this situation it was not innovations but housing that became the core of the city's economic model. The living standards gap between Moscow and the rest of Russia, the huge labour market, proximity to the government and business decision-making centres, the boom of the services sector and the concomitant growth of the middle class seeking better housing conditions have all contributed to huge demands on Moscow's housing construction

3 Report on the execution of the consolidated budget of the Russian Federation subject and the budget of the territorial state off-budget fund at <http://www.findep.mos.ru/pages/959>

market. And it was people themselves rather than institutional investors or lenders who have become the principal direct investors in new housing. The significant imbalance of cash flows in favour of real estate has had virtually no impact on the structure of municipal tax revenue. Land taxes contribute a mere 0.09% to the Moscow budget; individual property taxes 0.004% and land lease taxes just 0.02%.³ The absence of real fiscal federalism in the country and tough federal tax laws have denied the municipal authorities full control of their tax base, and a weak philosophy and infrastructure of transition to market relations with regard to land, have played a role as well. As a consequence, Moscow has failed to absorb the effect of booming investment into residential real estate and redistribute it in order to improve the quality of life and develop the urban environment. The tax system has failed to do its job and the growth effect of the residential real estate sector has not gone beyond the monopolistic construction sector. What makes Moscow's economic model paradoxical is that the value added of the happy combination of capital status and real estate resources is extremely low.

2 Moscow's Spatial Pattern

Moscow's spatial pattern adds to its economic problems. The city has several serious spatial imbalances, primarily between the centre and periphery. Compared to the centre, the periphery has "excessive" density in terms of population and residential construction, low job supply, a shortage of consumer services and a poorly differentiated quality of the urban environment. Moscow's population density and territorial pattern are the key indicators of this tangle of problems. Compared with the world's largest cities by population density, Moscow is second only to Dhaka and far outstrips other large cities in the developing world, such as Lagos, Mumbai, Hong Kong and Singapore, let alone New York and the European capitals, among them London, Paris, Rome and Brussels. This combination of high population density and low quality of life (according to the Mercer standards, see Fig. 2) puts Moscow alongside Dhaka and Lagos, Mumbai and Lima in the group of the world's most problem-ridden cities. Meanwhile, in terms of per capita income, Moscow is far ahead of those former colonial capitals, equaling that in the Netherlands.

So what is the problem? The answer to this question is the spatial pattern of population density and social and commercial infrastructure deployment in Moscow. While population density grows as you move from the centre out to the periphery, the availability and quality of the social and commercial infrastructure declines. Graphically represented, the two indicators look like overlapping funnels (see Fig. 1).

As a consequence the Moscow periphery has what is called "raw" or

4 Jane Jacobs. *The Death and Life of Great American Cities*, Vintage books. A Division of Random House, Inc, New York, 1992, page 208.

5 Land Use and Traffic Congestion Final Report 618 March 2012 Prepared by: J. Richard Kuzmyak Transportation Consultant, LLC Silver Spring, Maryland In Association with: Caliper Corporation Newton, Massachusetts and PolyTech Corporation Surprise, Arizona.

“askewed” population density that is not supported by an appropriate number of small and medium-sized businesses capable of providing for the people’s needs within walking distance. Free planning, lack of district development projects, underdeveloped pedestrian infrastructure and lack of mixed land use planning decisions all contribute to the city’s problems. Previously, Jane Jacobs noted that in order to be liveable, the urban environment needs a high population density. However, such a liveability level is only achieved when the infrastructure of everyday living is deployed within walking distance.⁴ According to an Arizona Department of Transportation report based on empirical agglomeration surveys of Phoenix and other US cities, traffic problems directly depend on population density; the higher the density, the less time people waste in traffic jams and the smaller the load on the public transport network.⁵ “Raw” population density should be made “healthy” and “creative” according to the 4D principle: density, standing for high density; diversity, meaning the functional diversity of urban space uses; design, implying urban development planning based on accessibility for pedestrians; and destination, signifying availability of transport alternatives.

In the Moscow context the implementation of the 4D principle requires considerable capital investment. The free-planning concept embraced by Soviet authorities made Moscow a “loose” city, with most of its habitable spaces defying the human horizon. Conceptually Soviet-time microrayons provided for pedestrian accessibility of the social and commercial infrastructure as an essential element of the “Soviet way of life.” However, this accessibility relied on directives and plans, target figures and lack of competition for space to lease. With the transition to the market economy, the “Soviet minimum” of social and commercial infrastructure provision gradually began to be replaced by business, which does not consistently meet the daily needs of the population (banks, shops selling plumbing equipment or electronics, clothes or furniture, auto dealerships, etc.).

The free-planning of Soviet microrayons turned out to be badly at odds with the naturally emerging market environment, especially its pedestrian aspects. The absence of clearly defined streets, with their ground floors taken up by shopping and social functions, and the scattering of retail and service outlets across microrayons denied small and medium-sized businesses the customer flows they needed. On the other hand, visual isolation made it difficult for potential clients to spot the shops or services they needed (eyetraffic): buildings are deliberately tucked away from pedestrian pathways and motor roads and hidden behind greenery. It will take decades to nurture a quality urban environment on the Moscow periphery. Market relations between land users and developers alone cannot put right the existing imbalances. Suffice to say, Moscow’s housing market did not flinch even at a 25% drop in oil prices because of continuous demand and a monopolistic construction industry which keeps filling up space with more building projects on the Moscow periphery and beyond, like in the Moscow Oblast, where multi-storey housing is built — just shelters with a roof overhead — without investing in the creative urban environment.

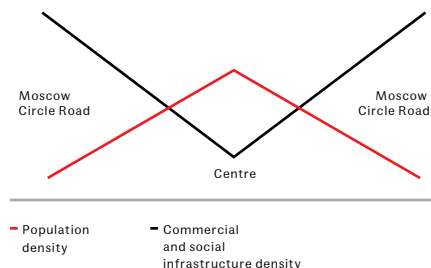


FIG. 1 The density of commercial and social infrastructure

3 Principal Imbalances in Moscow's Spatial Economy

The principal imbalances between Moscow's centre and periphery include:

Population Density and Commercial and Social Infrastructure Density Across Moscow

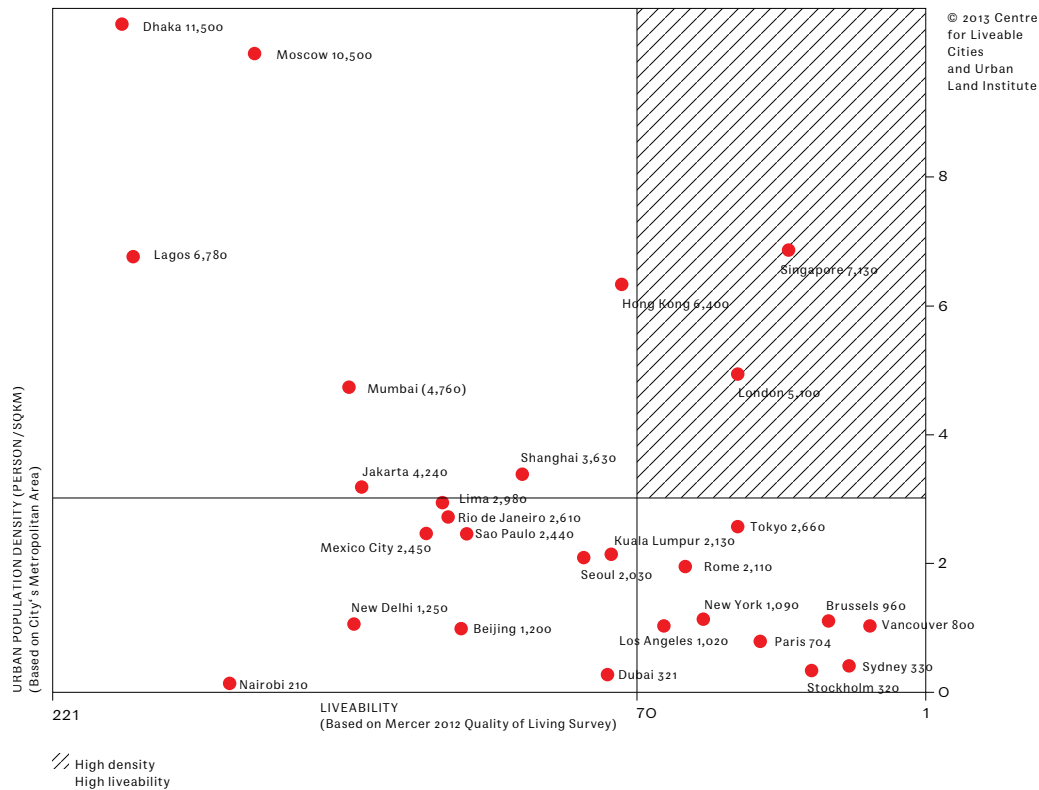


FIG. 2 Population density (ppl / км²)
Based on the area of urban
agglomeration

- 1 “Excessive” population and residential development density on the periphery compared with the metropolitan centre, averaging 136 vs. 72 people per hectare, respectively;
- 2 High job supply concentration in the centre compared with the periphery: 37% of jobs are in the Central Administrative District, which accounts for 5% of the city territory, and 9.3% at industrial facilities taking up 16% of the city's territory (industrial zones), or 13 times less in per hectare terms;
- 3 Insufficient provision of residential areas with consumer services (everyday services, retail trade and public catering, and cultural and recreational infrastructure) on the periphery compared with the city centre; on average the periphery has a mere one-third of the retail infrastructure enjoyed by the centre;
- 4 Poor differentiation of urban environment quality outside the city centre: the housing price range in the centre is, on average, 20% and on the periphery 12%; the dependence of the volatility of housing prices on their levels shows that urban environment quality is a tangible pricing factor only in the premium housing segment;
- 5 No differentiation of the tax base of individual land and property taxes between the centre and periphery, in particular, because of the preponderance of government land ownership (97%). Studies show that a market city is compact and has maximum density in the centre while a planned economy city, conversely, grows more compact towards the periphery (see. Fig.3). Under market pricing conditions, as the city's population grows, the more valuable centrally located areas come to be used more intensively, built-up density along with property prices go up and the

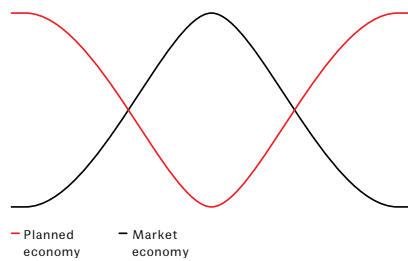


FIG. 3 Population density distribution across urban territory in market and planned economies

6 See, e.g.: 1. Alain Bertaud "Winds of Societal Change: Remaking Post-communist Cities", the Russian and East European Center (REEC), University of Illinois at Urbana-Champaign // 17.-19. June 2004. 2. Alain Bertaud, Marie Bertaud "The Spatial Development of Warsaw Metropolitan Area", 200.

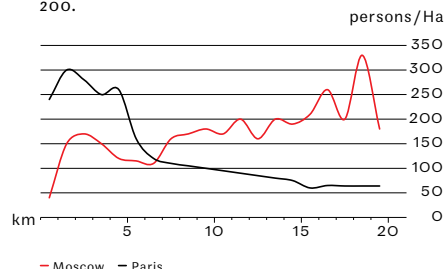


FIG. 4 Population density (persons/ha) in Paris and Moscow depending on distance from city centre (per Alain Bertaud)

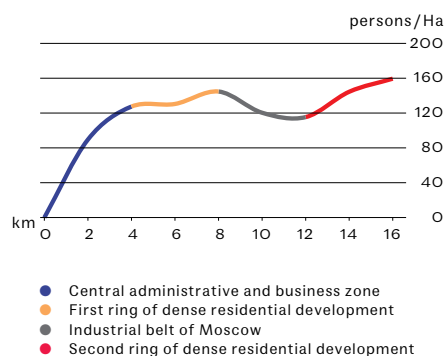


FIG. 5 Average population density (persons/ha) in Moscow depending on the distance from the centre (km) in 2010

residual need for additional real estate is met through urban expansion, with development density growing gradually towards the city centre.

Studies of urban residence patterns in post-socialist cities by Alain Bertaud (2000-2004) in the early 2000s indicate that, as distinct from cities with longer market development histories, population density in post-socialist cities increases as you move away from the centre into the outskirts (see Fig. 4).⁶ The more vivid examples include Moscow, Budapest, Krakow, Yerevan.

What impact has twenty years of the market economy had on the spatial organisation of housing construction and residence in Moscow? The answer to this question lies in the comparative analysis of population density distribution depending on the distance to the city centre along Moscow's 11 major thoroughfares in 1989 and 2010. The analysis was done according to the following methodology:

- 1 11 major thoroughfares were selected, including: Kutuzovsky Prospect, Entuziastov Highway, Profsoyuznaya St., Mir Prospect, Leningradsky Prospect, Michurinsky Prospect, Kashirskoye Highway, Zvenigorodskoye Highway, Dmitrovskoye Highway, Shchelkovskoye Highway and Volgogradsky Prospect;
- 2 Each axis was divided into 2 km intervals, within which cadastre quarters were identified;
- 3 Population density in 1989 and 2010 was calculated for each cadastre quarter.⁷

The results suggest several conclusions. Firstly, population distribution across Moscow's territory is very uneven. Schematically (Fig. 5) four "density belts" can be identified.

BELT 1

Central Administrative and Commercial Belt (0–4 km from the centre). It is the historical heart of the city. The average population density here is 72.3 persons/ha (peaking at 127 persons/ha in some neighbourhoods). Such low density is due to the presence of historical landmarks and administrative buildings. Central municipal functions are concentrated in the area, which also include Moscow's first industrial belt, located next to the boundary of the belt and largely built up by now.

BELT 2

In the first ring of compact housing development (4–8 km from the centre) housing is combined with industrial zones and large green spaces. This area became part of Moscow way back before WW2, in the Stalin-era reconstruction of Moscow. The average population density in this belt is 137.5 persons/ha (with a maximum of 145 persons/ha in individual areas).

BELT 3

Moscow's industrial belt (8–12 km from the centre) was vigorously growing in the post-war period (the area was considered the outskirts before the 1960 city expansion). The average population density is 117.5 persons/ha; however, today individual residential development "spots" begin to appear here as well, with a density of up to 120 persons/ha (one example is the Ochakovo industrial zone). However, the overall development degree of the industrial zone is not significant.

BELT 4

The second ring of compact housing development (12–16 km away from the centre) was vigorously built up after 1960, and has continued till today. The average population density here is 152 persons/ha (peaking at 377 persons/ha in individual areas).

7 Population density was calculated as the quotient of the population number of the cadastre quarter by the area of such cadastre quarter (per data of the Public Cadastre Map). The population of the cadastre quarter was calculated as the product of the average household size in the neighbourhood (per data of the 1989 and 2010 all-Russia censuses) multiplied by the number of the housing units in such cadastre quarter. The number of housing units in the cadastre quarter was determined on the basis of the wikimapia.org database (a satellite image was used to determine the standard series of each building and the number of housing units per cadastre quarter was calculated accordingly).

8 If the population density data is averaged, the compaction is less pronounced because the industrial belt in some parts of Moscow is narrower than in others. The compaction of the outskirts can be traced accurately only at the level of axes.

Secondly, during over more than twenty years of market-oriented development, the Moscow population density model has not changed in any significant way or evolved towards the spatial organisation of the market city: just as in 1989, in 2010 the urban periphery is far more densely populated than the city centre (see Fig. 6). In addition to that, at the macro level no major changes in the population density have been identified (which is explained by heterogeneous urban space). The compaction of the outskirts is especially visible at the level of axial analysis,⁸ which indicates that between 1989 and 2010, the compaction of the Moscow outskirts was greater than that in the city centre; analysis along individual axes is even more demonstrative. For example, on Michurinsky Prospect, the population density in the Troparevo-Nikulino area grew from 70 to 250 persons/ha (257%), whereas in the centre, by a mere 23.4%, from 69 to 84 persons/ha. This indicates a delay in the emergence of a full-fledged land and real estate market in Moscow. Along with that, the process of compaction across urban areas is very selective: even within the second belt of dense development, which is very attractive to investors, the maximum population density nodes gravitate towards the intersections of major thoroughfares with the Moscow Ring Road, and most of those nodes have become more pronounced over the past 20 years.

Jobs and Industrial Zones

Today Moscow has 209 industrial zones estimated to occupy 7,900 ha, or 16% of the city's territory. If we count the territory of freight and transshipping yards, motor pools, utility zones and engineering infrastructure, the production zone area totals about 15,500 ha⁹ (comparable with the Paris' 10,500 ha), of which 478 ha are outside the production zones. A total of some 150 km of fences dissect the territory of Moscow along the perimeter of industrial zones, breaking the continuous fabric of the city into individual fragments. One-fifth of the total area of Moscow's production zones is in the South-Eastern Administrative District (one-fourth of the district's total area), another 15% in the Southern and still, another 8% in the South-Western Administrative District. As a consequence, these three southern districts account for 41% of the entire territory of Moscow's production zones. Such zones take up the smallest share of Moscow's land resources in the Central and North-Western administrative districts: 2% and 4%, respectively. The Zelenograd Administrative District has the largest share of production zones on its territory — 26% (972 ha) — but its area is relatively small. The South-Eastern Administrative District with 25% (2,887 ha) is the leader among the administrative districts within the Moscow Ring Road in this respect, followed by the Southern (18%, 2,309 ha) and Northern (18%, 2,108 ha) districts (see Fig. 7). The Northern and North-Western administrative districts have the largest number of industrial facilities; however, their area is

9 According to data from the Single Computerized Information System of Moscow's Integrated Geo-Information Space.

10 Federal State Statistics Service. Statistics handbook "Regions of Russia. Socio-economic Indicators 2011" <http://www.gks.ru/>

11 <http://clever-estate.ru/news/pressabout/ostanutsya-li-ofisyi-klassa-s-i-d-posle-reorganizacii-promzon>

12 Resolution No 107-PP, Feb. 24 2004, on the targeted programme of reorganising production territories of the City of Moscow for 2004-2006.

13 Federal State Statistics Service. Statistics handbook "Regions of Russia. Socio-economic Indicators 2011".

14 Strategy of the Socio-economic Development of Moscow till 2025.

modest and their impact on the environment moderate, while larger plants in the south-east of Moscow pose worse hazards to the environment. Most of Moscow's industrial facilities (91%) are privately owned. However, the share of such industries in the total amount of self-produced shipped goods and self-performed works and services is a mere 26% of the total output of Moscow's manufacturing sector.¹⁰ Therefore the floor space of most private facilities in the industrial zones is not used as intended, but as offices, warehouses or retail outlets. C-grade offices occupy up to 40% of the total area of Moscow's industrial zones, and car washes, service centres and similar services account for another 20%. The remaining 40% of the area are used as commercial warehouses.¹¹ According to the Moscow government, 24% of all industrial facilities are loss-making, fixed assets are up to 47% depreciated, and just one-third of all factories and plants operate efficiently.¹² A low percentage of jobs available in such zones is further proof of the poor efficiency of their use. In 2011 Moscow's manufacturing sector employed 604,000 people, or 9.3% of the workforce.¹³ At the same time the full-time equivalent jobs in the Central Administrative District is 2.4 million.¹⁴ Therefore, the job density rate (per unit of territory) in the Central Administrative District is 362.5 persons/ha while in the production zones it is a mere 27.5 persons/ha, or 13 times less.

Consumer Services Offer

Availability in the urban environment of commercial and social facilities, including small retail and service outlets and cultural and recreational facilities that shape the retail infrastructure of consumer services is an indicator of the quality of life. Better living standards are ensured not just by a broader offer of goods and services within walking distance, but also by improving their quality, which is achieved through keener competition between small providers. In addition to that, small businesses perform social functions in the community, such as the development of local markets and job creation for residents, opportunity for the application of the creative potential of citizens and promotion of entrepreneurship, the broadening of the range of offers and improvement of the quality of goods and services for the public.

Utility, cultural, recreational, retailing and public catering services are consumed in the process of the 24-hour cycle of "urban environment consumption" by residents and can be associated with places of residence, jobs and major transport interchange hubs alike. Jobs in Moscow are concentrated within the Central Administrative District (37% of all jobs) and, due to the spoke-ring transportation pattern, most of the connections made by people during the day also take place in and around the city centre. This fact suggested the hypothesis that the density of the commercial and social consumer service infrastructure in Moscow decreases from the centre to the periphery, which accords with the character of the distribution of real estate prices and stands in inverse proportion to population density distribution. An integral indicator has been designed for the city's municipal districts to evaluate the availability of consumer service providers in the urban environment. The indicator was calculated based on the following data:¹⁵

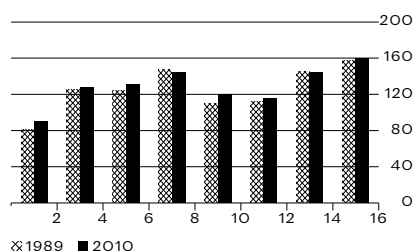


FIG. 6 Population density (persons/ha) across Moscow depending on distance from the centre (km) in 1989 and 2010

15 Key Socio-economic Indicators of Municipalities, Territorial Authority of the Federal State Statistics Service for Moscow, 2011 <http://moscow.gks.ru>

— Number of consumer service businesses, including bath houses, hairdressers, photo studios, various repair shops, engineering service centres, etc. (10,100 outlets);

- Number of retailing and public catering outlets, including food and non-food shops, supermarkets, shopping centres, kiosks and stalls, pharmacies, filling stations, cafes, restaurants, bars, etc. (58,200);
- Number of cultural and recreational facilities (666).

The absolute figures for each of the three indicators were correlated with the population of the respective municipal district and presented as the number of facilities per 10,000 of the population. Next the data was normalised with respect to averages, which makes it possible to correlate the indicators and identify the difference between the value for each district and the average for Moscow. The integral index was calculated as the average of the three above indicators to arrive at a comprehensive picture of the availability of commercial and social infrastructure facilities in Moscow's districts. In addition to that, all of Moscow's administrative districts were divided into three categories: central (within the Third Transport Ring), peripheral (between the Third Transport Ring and the Moscow Ring Road), and those beyond the MRR, with the average values of all the indicators calculated for each category. As Figure 8 shows, the hypothesis regarding the uneven distribution of commercial and social infrastructure across Moscow is fully corroborated. On average the periphery gets just one-third of the retail services available in the centre.

Cultural and recreational facilities used occasionally are also distributed very unevenly between the centre and periphery. The value of this indicator within the TTR is on average 2.5 times higher than the Moscow average, while on the periphery, conversely, it is by 30% lower than the average. This is also true of retail trade and public catering: in the central municipal districts the values of this indicator are almost 2.5 times higher than the Moscow average while the districts between the TTR and the MRR are 25% below the average. The widest gap between the centre and periphery is found in the availability of cultural and recreational facilities – 3.5 times – with the gap in the trade and public catering services being a close second (3.3 times) (see figures 9 and 11). Although the gap in the availability of everyday consumer service businesses is not so wide, it is nevertheless quite substantive – almost two times (see Fig. 10). However, there are certain differences within the identified categories of facilities. Dry cleaner's and hairdresser's shops and restaurants (see Fig. 12) are the more characteristic examples. The gap between the centre and periphery in the provision of dry cleaner's and hairdresser's services is slightly wider than that in terms of consumer services in general – 2.2 times. The gap in the category of restaurants, cafes and bars is far wider – almost 6 times – which is twice as large as that in retail trade and public catering in general.

Housing Market Pricing and Urban Environment Quality

When buying housing, one actually buys a housing service that is a

Differentiation in housing prices in Russian and foreign cities¹⁶

TABLE 1

	VARIATION COEFFICIENT OF AVERAGE HOUSING PRICES BY CITY DISTRICTS, %	VARIATION COEFFICIENT OF AVERAGE HOUSING PRICES BY CITY DISTRICTS, WITH CENTRE SUBTRACTED, %	EXCESS OF THE VARIATION IN AVERAGE HOUSING PRICES BY CITY DISTRICTS OVER THE VARIATION OF AVERAGE HOUSING PRICES BY CITY DISTRICTS, WITH CENTRE SUBTRACTED
LOS-ANGELES, USA	78	—	—
NEW YORK CITY, USA	67	26%	2.6
LONDON, UK	39	20%	2.0
MOSCOW, RUSSIA	20	12%	1.7
YEKATERINBURG, RUSSIA	21	15%	1.4
PARIS, FRANCE	20	18%	1.1
SAINT-PETERSBURG, RUSSIA	12	12%	1.0
PERM, RUSSIA	12%	10%	1.2

16 Calculated by the authors based on the data: New York and Los Angeles 'Hedonic versus repeat-sales housing price indexes for measuring the recent boom-bust cycle', 2010 (Dorsey, Hua, Mayer, Wang), Residential data report of The Real Estate Board of New York; London - www.landregistry.gov.uk/; Paris - www.french-property.com/; Moscow - database «Real Estate Market Monitoring», rosreestr.ru/wps/portal/; St Petersburg - real estate agency «Bekar», www.becar.ru/district_stat2.php; Yekaterinburg - Regional association «Ural Chamber of Real Estate», upn.ru/analytics/1793/2013/5/14135.htm; Perm - OOO «Analytical Center KD-consulting» analitika.kamdolina.ru/.

Price differentiation for housing cost in Moscow, depending on the distance from the city center¹⁷

TABLE 2

	DISTANCE FROM CENTRE, KM	AVERAGE RENT, THOUSAND RUBLES/MONTH	COEFFICIENT OF VARIATION IN HOUSING PRICES, %
CENTRE	2	273	25
	4	173	16
PERIPHERY	6	158	13
	8	149	12
	10	134	9
	12	138	15
	14	125	8
	16	121	5

17 Calculated by the authors based on the data of real estate market, Rosreestr. Data is used on cadastral blocks along 11 major thoroughfares: Kutuzovsky Prospect, Entuziastov Highway, Profsoyuznaya St., Mir Prospect, Leningradsky Prospect, Michurinsky Prospect, Kashirskoye Highway, Zvenigorodskoye Highway, Dmitrovskoye Highway, Shchelkovskoye Highway and Volgogradsky Prospect.

Price differentiation of 60 sq.m two bedroom flat in Moscow, depending on the distance from centre¹⁸
TABLE 3

	DISTANCE FROM THE CENTER, KM	AVERAGE RENT, THOUSAND RUBLES/MONTH	VARIATION COEFFICIENT OF RENT PRICES, %
CENTRE	2	91.9	39
	4	66.6	36
PERIPHERY	6	49.1	46
	8	51.4	38
	10	49.4	36
	12	40.2	35
	14	40	12
	16	37.8	11

18 Calculated by the authors based Yandex.Realty database. Data is used on cadastral blocks along 11 major thoroughfares: Kutuzovsky Prospect, Entuziastov Highway, Profsoyuznaya St., Mir Prospect, Leningradsky Prospect, Michurinsky Prospect, Kashirskoye Highway, Zvenigorodskoye Highway, Dmitrovskoye Highway, Shchelkovskoye Highway and Volgogradsky Prospect.

Average rental price and monthly mortgage payment for rental/purchase of a 60 m² two bedroom flat in Moscow depending on the distance from the centre¹⁹
TABLE 4

	DISTANCE FROM CENTRE, KM	AVERAGE RENT, THOUSAND RUBLES/ MONTH	MONTHLY MORTGAGE, THOUSAND RUBLES/ MONTH	RATIO OF THE MONTHLY MORTGAGE TO THE RENT
CENTRE	2	91.9	140	1.5
	4	66.6	88,6	1.3
PERIPHERY	6	49.1	81	1.7
	8	51.4	74.4	1.4
	10	49.4	68.8	1.4
	12	40.2	70.5	1.8
	14	40	64	1.6
	16	37.8	62	1.6

19 The share of the mortgage loan in the flat price is assumed at 70%, the mortgage interest rate at 12.3% and the loan term at 15 years.

composite benefit: it includes housing space per se and, in addition, utility and maintenance services, curtilage, urban environment, accessibility of the city centre, accessibility of the transport and social infrastructure, availability of consumer services within walking distance, etc. Therefore, the differentiation of housing prices across the city depends on all the above factors. If such prices are relatively uniform all over the city territory, then housing characteristics are relatively the same – either equally poor or equally good. Table 1 shows that on average Russian cities have more uniform urban housing prices than foreign cities. The variation of real estate prices is especially pronounced in US cities: in Los Angeles the scatter of prices is 78% compared to the city's average market price and in New York 67%. Price differentiation in European cities is far smaller (39% in London and 20% in Paris, for example).

Among Russian cities Moscow and Yekaterinburg have the highest (though still low) inter-district price differentiation (20–21% of the city average). It holds mostly for the central districts of the city, whereas beyond them, there is little difference between housing prices: housing price variation within Moscow belts equally removed from the centre declines towards the periphery (from 25% in the centre to 5% near the MRR) (see Table 2). Average housing prices in the centre are far higher than on the periphery. The largest price variation is found in the costly centre, whereas prices are far more levelled out on the less expensive periphery. The housing price differences between the centre and other districts in Saint-Petersburg and Perm are even smaller. Thus in terms of general price differentiation, Moscow only compares with Paris and is far behind London and New York (by 2 and 3.4 times, respectively), while in terms of variety of price offers on the periphery Moscow greatly trails all the foreign cities mentioned, including the out-of-centre districts of London and Paris (1.5–2 times) and the New York periphery (2.2 times).

An analysis of housing prices in Moscow reveals that housing characteristics, including the qualitative characteristics of the urban environment outside the central part of the city, are relatively homogenous. However, as seen from the situation in Paris, the characteristics of Moscow periphery are equally unsatisfactory rather than equally good, as illustrated by poor availability of retail infrastructure and jobs and by excessive population density (see sections 3.1–3.3).

As follows from Table 3, with the distance to the centre being equal, rents are more differentiated than purchasing prices. It is important to note that rent market pricing differs substantially from purchase/sale pricing for the following main reasons, which may impact on a larger price variation:

- 1 The housing rent market is far more differentiated in terms of legal guarantees: unofficial rent contracts carry a “risk bonus” (discount) for the tenant while legal agreements imply a surcharge for the landlord;
- 2 The landlords' costs and, therefore, rents may or may not include investment expenditures.²⁰

The above reasons impact primarily the rent levels in Moscow, which are, on average, lower than the monthly mortgage installment for similar housing by slightly more than 30% (see Table 4). The gap grows from the centre to the periphery to almost 45%, which means that the rent drops faster as one moves from the centre to the periphery; this also indicates greater

20 E.g., if housing has been acquired by way of free privatisation.

price sensitivity to the location of the property.

Real Estate Tax Regulation

Tax regulation is a tool regulating the real estate market, including land, housing, commercial real estate, etc. Real estate taxes finance the development and maintenance of public spaces and provision of social services and, moreover, are used as a tool to influence the choice of real estate uses. In the absence of market real estate taxes budget financing of urban public boons runs dry (making it necessary to look for other sources of financing) while land and real estate facilities can be used inefficiently without any substantial loss.

Russia's real estate taxes include taxes on the property of residents and organisations, and also the land tax. Moscow has virtually no land tax base due to the preponderance of state and municipal land ownership (97%). Nor do property taxes perform their real function because they are calculated based on the assessed value (with regard to the property of natural persons) or book value (with regard to the property of organisations), which can be tens or even hundreds of times less than the market value of the respective properties. As a consequence, land taxes contribute a mere 0.09% to the Moscow budget, individual property taxes 0.12% and corporate property taxes 5.7%. The principal source of municipal budget revenue is profit and individual income taxes, each contributing 35%. Many of the foreign cities have other ratios: in the US and Canada, for example, property taxes account for 30–40% of municipal budget revenues. Therefore, the absence of effective tax regulation of Moscow's real estate market contributes to pervasive imbalances in urban land use and, in particular, to continued low involvement of industrial zones in commerce, which causes bad losses to society.

4 Theoretical Model of Cyclic Degradation of Moscow's Periphery

The imbalances reviewed above have caused fundamental distortions in more ways than one. First, the key factor of housing pricing today is consumers' incomes rather than housing or environment quality, towards which prices are neutral. Second, given the distorted pricing mechanism, market-oriented developers faced with the choice between two strategies — “competition in prices only” and “no competition at all” — go for the latter,

21 It may be tacit collusion, when, rather than seeking outright complot, developers watch one another's strategies and act accordingly

which means price collusion²¹. In other words, developers lose by spending resources to improve the non-price characteristics of housing unless this is reflected in prices. In this situation collusion is easy to achieve because the only thing to be “agreed” is the price rather than a number of qualitative characteristics that would have to be evened out at the projects of different developers (it is already so today, which makes collusion much easier).

The resultant distortions in the peripheral economy activate the cyclic mechanism of the further aggravation of imbalances in the use of such lands (see Fig. 13), that is, the further compaction of housing development, persistent shortage of commercial space and social infrastructure, the uniformly low quality of the urban environment, and so on ad infinitum.

5 New Model of Consistent Development of Moscow's Periphery

According to this model Moscow's further development is bound to aggravate existing population density imbalances, shortages of retail infrastructure and jobs and the quality of the urban environment (see the “business as usual” scenario on Fig. 14). Transition to a new model of consistent development calls for measures to break the continuously self-reproducing degradation cycle, which will put right the existing imbalances, stem the process of their escalation and lead into a new development trajectory (see



FIG. 7 Share of industrial zones in the territory of Moscow's administrative districts.

Source: <http://moscow.gks.ru>

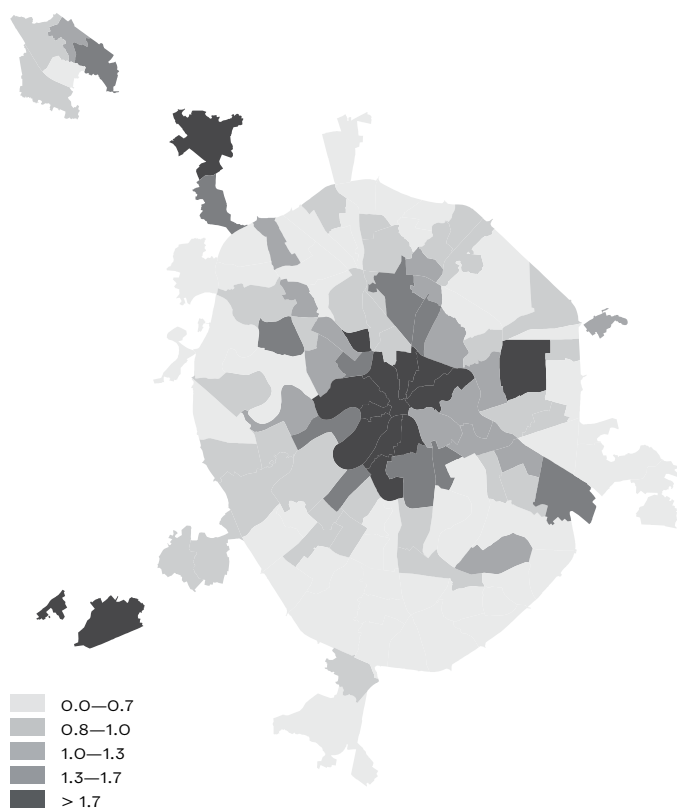


FIG. 8 Availability of social and commercial infrastructure in Moscow's municipal districts compared to their average availability across Moscow
Source: <http://moscow.gks.ru>

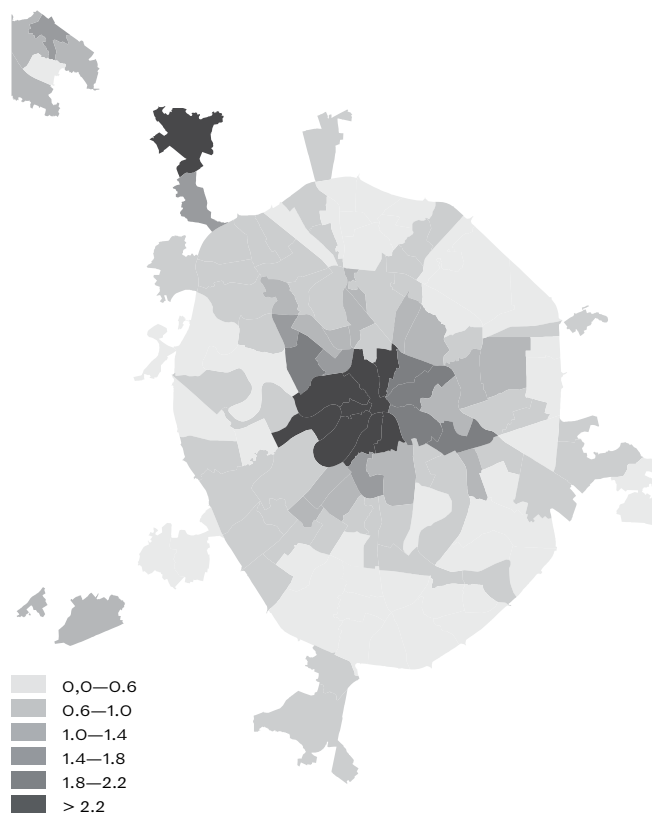


FIG. 9 Availability of retail and public catering outlets in Moscow's municipal districts compared to their average availability across Moscow
Source: <http://moscow.gks.ru>

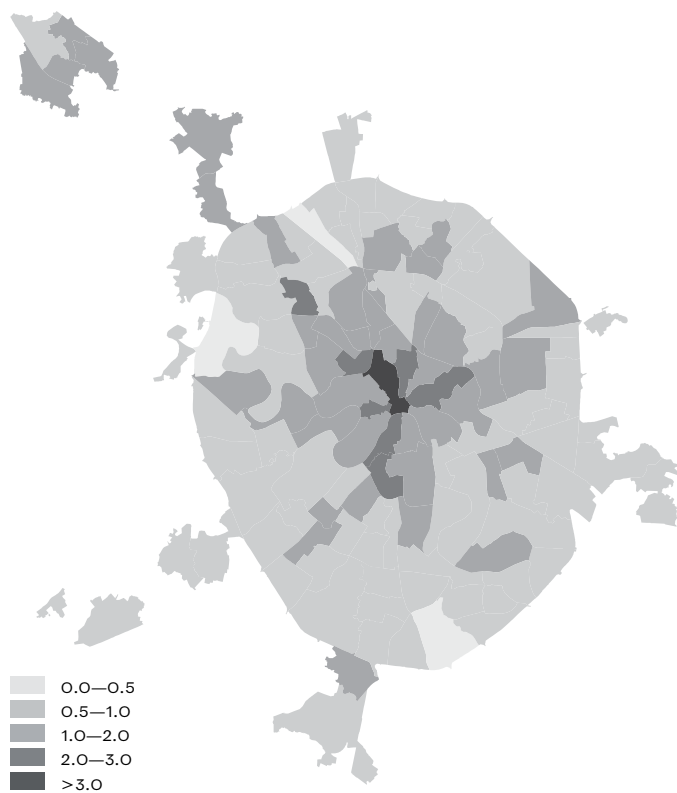


FIG. 10 Availability of consumer service businesses in Moscow's municipal districts compared to their average availability across Moscow
Source: <http://moscow.gks.ru>

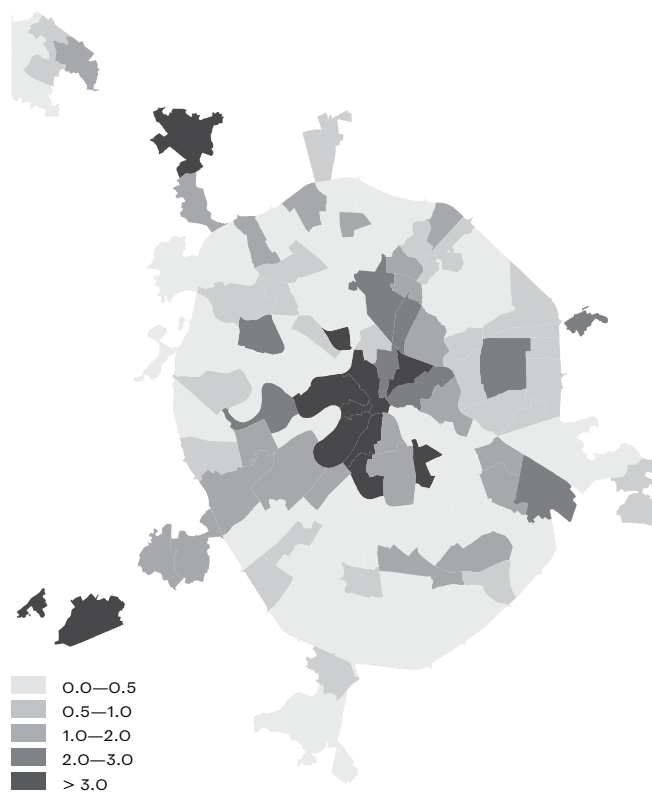


FIG. 11 Availability of cultural and recreational facilities in Moscow's municipal districts compared to their average availability across Moscow
Source: <http://moscow.gks.ru>

22 Calculated based on per unit averages of cadastre values of the housing space of cadastral quarters in Moscow as per data of the Moscow Government (mos.ru/documents/index.php?id_4=129699), and also Rosstat data for the total floor area of the housing fund and the average flat size by Moscow's administrative districts after a 20 m² deduction and at the tax rate of 0.1% of the cadastre value of the housing unit.

23 According to the average cadastre value of land in the City of Moscow by administrative districts and types of permitted land use (Resolution No. 670-PP of the Government of Moscow "On Approval of Results of State Cadastre Valuation of Land of the City of Moscow"), the cadastre value of land plots with the types of permitted use, including for business and commercial office buildings and retailing, public catering and consumer service outlets, is three times the cadastre value of land under production and administrative buildings, structures and facilities for industry, utilities, material, technical and food supply, sales and procurement. The differences in the cadastre value of facilities deployed on land plots with appropriate permitted land use type are assumed to be similar to those between the cadastre value of such land plots.

proposed scenario on Fig. 14). The set of measures leading Moscow out of the "vicious circle" is determined by several strategic objectives.

- 1 Developing a system of measures to limit population density on the periphery at the present level of 100 persons/ha and beyond the MRR 50 persons/ha while securing the resource of raising population density in the centre by an average of 40%.
- 2 Encouraging the growth of job availability on the periphery in proportion to its demographic potential, which may increase the number of jobs outside the centre by about one-third to bring their share to 80% of the city's total employment;
- 3 Converting the "raw density" of the periphery into "healthy density": narrowing the gap between consumer service availability on the periphery compared to the centre on average by half.
- 4 Creating the conditions under which any differences in urban environment quality are translated into price signals on the real estate market, which will most likely lead to a greater variation in average housing prices between different city districts outside the centre on average from the present 12% to 25%.
- 5 Developing a mechanism through tax regulation measures, such as gradual introduction of a property tax, to enable the city budget to absorb the benefits of the economic potential of Moscow's real estate and redistribute it in favour of improving the urban territory. An assessment of budget revenues based on the cadastre value of properties shows that they could be increased 12 times to 23 billion rubles per year or 1.4% of all municipal budget revenue²².
- 6 Changing the type of land use in industrial zones and encouraging the development of business and commercial offices and retailing, public catering and consumer service outlets on these territories. One side effect of such policies would be a 200% increase in the Moscow budget revenues from the corporate property tax (based on the cadastral value of properties).²³

The accomplishment of these objectives calls for the following measures:

- The establishment of a system of regulations of legal zoning and master plan of Moscow to constrain residential development density on the periphery with commercial and social infrastructure development requirements;
- Opening up of peripheral industrial zones to commercial space development, in particular, to the deployment of various innovation-based industries with a view to creating jobs and improving the quality of the periphery. Such industrial territories are to be used first and foremost as a way of substituting a market of producers and providers of high value-added goods and services for the market of the developer's land rent on the periphery;
- Establishment of a "second centre" beyond the MRR that would offer a new quality of housing, mostly low-rise multi-flat complexes planned by quarters; a far higher quality of the urban environment compared with the periphery built up with multi-storey blocks of flats; transportation links within the area and to the historical centre of the city; and rigorous urban development zoning.

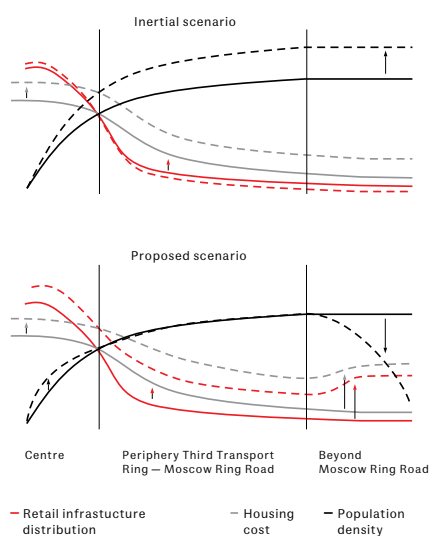


FIG. 12 Moscow development scenarios

When this plan has been implemented, housing prices in Moscow will become more sensitive to the quality of housing and the urban environment, which will boost competition between developers and, therefore, raise the differentiation of housing market offers and bring about offers of a new product, namely, a comfortable urban living environment.

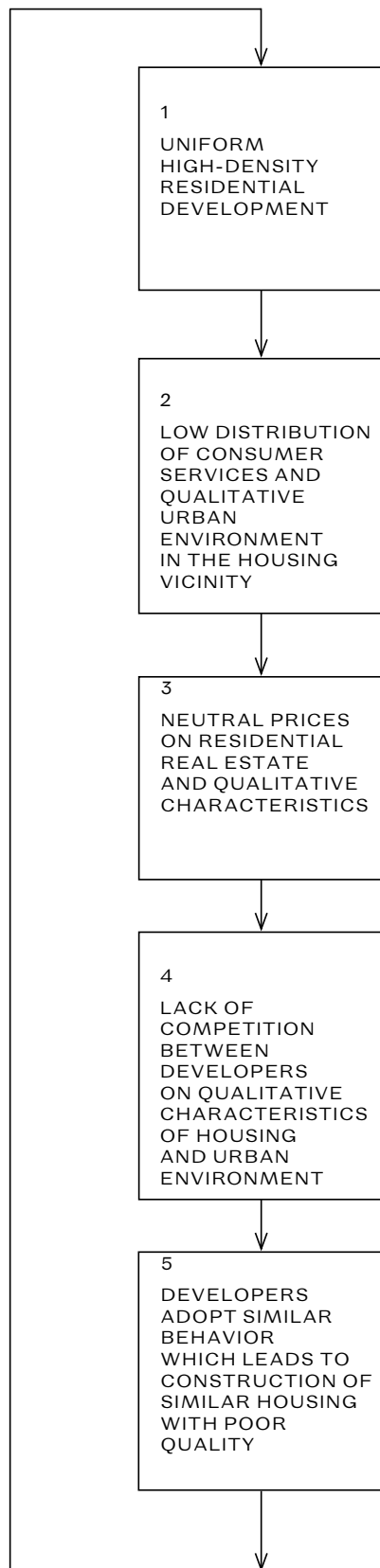


FIG. 13 Cyclic model of
Moscow periphery degradation

Residential Development Density Control on the Periphery

Development density control, especially in case of residential development, is a tool of urban growth control policy. Such policies or individual measures thereof can be initiated by the public itself through referendum or officially introduced by the properly empowered authorities. In particular, American cities, among them San Francisco, Chicago and Boston, pursue such policies. Russian cities, including Moscow, virtually don't practice any regulation of development density, which has resulted in the substantial prevalence of new and multiplying development projects on the outskirts of cities over redevelopment projects of existing territories. Instead of getting more compact, Russian cities tend to sprawl. However, even in Russia, Perm, Belgorod and Yuzhno-Sakhalinsk, for example, have taken decisions to constrain development density. These cities have opted for redevelopment and supported their choice with, among other things, urban territorial planning and development zoning documents. But most cities (Yekaterinburg is an example) prefer mammoth projects to build millions of square metres of housing in the suburbs or on newly joined-up sites.

Efficient Use of Industrial Zones

The transformation of industrial zones calls for a comprehensive approach and the application of the key principle of keeping production where it is possible and efficient and reorienting other territories to new uses. Since most of the industrial zones are on the periphery, they constitute the main resource for righting up Moscow's existing imbalance between the high population density on the periphery and the low availability of job-generating places, commercial and social infrastructure.²⁴ Moscow's industrial zones have a potential for promoting innovation-based businesses, first and foremost as a home for technological clusters, laboratories and R&D centres offering engineering, consulting and research services. Studies of foreign cities show that while industries are ready to surrender their urban locations and leave, science-intensive high-tech businesses face a more difficult choice. The reason is that they rely on highly-paid skilled labour, on top engineering talent concentrated in cities. In addition to that, high-tech sectors often cooperate with-in innovation-based clusters, use flexible arrangements with suppliers and customers and promptly respond to changing outside conditions, which is impossible in isolated compounds away from the urban environment.

San Francisco

According to the San Francisco Planning Department, in 1970 industrial zones took up almost 11.5 km², or 14% of the city's territory. By the 2000's

24 Even today many administrative buildings of shutdown factories are leased out at affordable prices as C-grade offices and attract Moscow's small businesses.

the area of industrial zones had contracted by 51% to 5.9 km² (5.8% of the city's territory), with 37% of the territory built up with offices and residential units. At present the industrial sector employs about 11% of the city's workforce. Nevertheless, many industrialists decided they had solid reasons to stay behind in San Francisco: they hated losing well-established contacts and links with customers, suppliers, labour, transportation networks and environment they needed to operate successfully. San Francisco manufacturers invest in new intensive production processes and have higher value added per worker than companies elsewhere in California. The remaining San Francisco industrial producers use their position to access specialized markets and labour pools and can afford the extra costs associated with their locations. One example of such businesses is the printing sector.

In **Paris**, the transformation of an abandoned Renault factory following WW2 happened when the French government launched a programme to decentralize French industrial production and relocate factories beyond the boundaries of the Paris agglomeration, then home to 80% of the national automotive industry and most of optics production. Altogether 4,000 factories were relocated from Paris, most of them to nearby suburbs. As a consequence, the share of industry in the Ile-de-France economy shrank from 26% in 1954 to 15% in 1995. Today high-tech factories prevail among the remaining heavy industries in the region. At the same time the share of industry rose dramatically in some of the departments bordering on Ile-de-France, among them Oise, Eure and Loiret, which became home for many companies relocated from Paris. At present part of the territory of former industrial zones is being used to expand the railroad network and improve the transportation system of the entire Ile-de-France region while another part has been reserved for the construction of multifunctional complexes and parks. One example of industrial zone redevelopment is the Seguin Island project of a cultural eco-centre. A while ago the island, southwest of Paris on the Seine, was home to Louis Renault's largest car factory with a total workforce of over 20,000. A cultural and environmental project was proposed to change the face of the territory and make it more attractive to the public. Almost 25,000 m² are to be made available for offices, shops and public spaces. The project provides for many public spaces, green zones and pedestrian walkways. A key element is a planned large music complex with recording and performance spaces and a modern art centre on the river bank.²⁵

25 Project completion is planned for 2017.

Quality Suburbanization

The proposed model cannot be implemented without changing the quality of suburbanisation processes beyond the MRR, which today have the following negative characteristics:

- The spread beyond the MRR of territorial development models *a la* the Moscow periphery within the framework of the so-called multi-storey suburbanisation, which detracts from such territories' potential of better environmental characteristics. Multi-storey suburbanisation does not create an urban environment but dilutes the functions of towns around Moscow as local centres, just as it happened to the townships and villages incorporated into Moscow in the second half of the 20th century;

- Incomplete processes of “classic suburbanisation”, when better-off families move out to the suburbs in search of better quality residential environment and more beneficial environmental conditions. As a consequence, in Moscow suburbanisation is purely seasonal, centering on the dachas. Given the concentration of quality jobs in the centre of Moscow and problematic daily commutes, home owners from gated communities suitable for round-the-year living continue to use their out-of-town dwellings as second homes and keep Moscow flats as their main places of residence.

The result is the potential of creating a full-fledged quality urban environment around settlements of well-to-do families in Moscow’s suburbs beyond the MRR, which could in turn attract quality jobs and drive the growth of a developed retailing infrastructure, being wasted. When developing a periphery into a city, it is especially important to create new focal points that can compare with the centre in terms of urban environment comfort, accessibility of quality jobs and the quality of retailing infrastructure services both within the urban periphery and outside it. Although new focal points can hardly be established on Moscow’s existing periphery in the foreseeable future, the objective of developing local town centres is more than relevant. One important condition of the implementation of this model is the development of a “second centre”, or rather, multiple “centres” in areas abutting on the MRR and having appropriate potentials.

Several steps will need to be taken in order to accomplish this goal:

- 1 Stop the development of these territories according to the present sprawl model of the Moscow periphery, which will require urban development regulation measures;
- 2 Refurbish the existing centres of towns outside Moscow to shape an urban environment that would be superior to that of the Moscow periphery. This will require better coordination and interactions between the public authorities of the Moscow and the Moscow Region and the application of inter-municipal cooperation tools;
- 3 Form new municipalities on the basis of large gated communities and their territorial clusters, encourage the choice of such communities as places of residence and comprehensively develop such municipalities complete with the creation of high value-added jobs, construction of social and commercial infrastructure facilities and improved transport accessibility of such communities;
- 4 Implement new low- and medium-rise development projects in New Moscow and elsewhere outside the capital that would offer housing of a new quality, an attractive living environment, highly developed infrastructure and accessible services, all on a par with the conditions available in the historical centre.

These characteristics of Russian suburbanisation constrain the application of urban development experiences of other countries. At the same time international practice supplies numerous examples of successful suburban

redevelopment around major cities.

Development of “Alternative Centres” in Major Market Economy Cities

The so-called alternative centres arose in major cities of industrial countries in the course of natural suburbanisation. As different transport modes, such as trams and then mass private cars, developed, the more well-to-do families moved out to the suburbs. Relatively low land prices there allowed people to buy quality housing, usually stand-alone homes, in attractive loosely populated communities. While in the early stages of the process suburbanites commuted to work in the city centre, with time jobs followed well-to-do and skilled people, leaving the centre for the suburbs. That set the stage for the degradation of the urban centre. Small satellite communities around major cities usually did not lose their identity (as they do in Russia), but became nuclei of new urban centres.

Most of the suburbs of major cities today are very attractive residential areas with high living standards and adequate job supply. For example, in Greater London, the population density is less than 40% of Inner London and the share of residents in need of poverty benefits is lower by 23%. The availability of jobs per working-age resident is 0.6, which is just a little over two times less than in London's central districts.²⁶ Many communities that arose as alternative centres in the suburbs of major cities have become world famous. The better known examples include Silicon Valley outside San Francisco, Jersey City (New York), Highway 128 (Boston) and Randstad (Amsterdam-Rotterdam-The Hague). International practice supplies numerous examples of successful suburban redevelopment around major cities.

26 Calculated based on data from: <http://data.london.gov.uk/visualisations/atlas/borough-profiles/atlas.html>

Alexandria (suburb of Washington, DC)

Historically, Alexandria grew as a port and industrial zone (a torpedo factory), but suburbanisation in the Washington metropolitan area fostered demand for a quality urban environment in that suburb. Alexandria's historical centre with landmarks was converted from an industrial/transportation hub into a cultural and entertainment area. Today Alexandria is home to an art centre (the former Torpedo Factory), artists' workshops, exhibition halls and art galleries, and many museums, restaurants, antique shops and boutiques. Alexandria has good transportation links to the centre of Washington (a Metro line), and the city's infrastructure facilities attract not just residents of nearby areas, but also people from other districts of Washington and numerous tourists.

6 Conclusion

The study has proved the hypothesis that Moscow's spatial economy are badly imbalanced. The market economy has responded to Soviet-period internal imbalances in the use of the city's territory, including its periphery, with a distorted pricing mechanism on the housing market. Far from impeding the aggravation of spatial imbalances, this mechanism supports them by discouraging developers from creating a diverse quality urban environment. The monotony and poor quality of residential development out of the Moscow centre are aggravated by excessive population density and shortages of commercial and social infrastructure and job-generating places. However, these factors do not bring down housing prices: analysis shows that their level and growth depend not on the quality of housing and

urban environment, but on the very fact of its being in Moscow. Regrettably, what makes Moscow attractive is not high economic competitiveness but the benefits of its capital status, including the concentration of cash flows generated primarily by the country's huge export revenues.

The city fails to derive adequate revenues for development from its extremely valuable assets such as housing, land and commercial property: industrial zones are loss making and property and land taxes are virtually non-existent. The resulting picture of Moscow's spatial economy strongly suggests that it is necessary to shift to a fundamentally new urban development model, one that would correct the spatial imbalances in population density and urban environment quality between the centre and the periphery by opening up industrial zones to create job-generating places in the new economy, limiting residential development density on the periphery, introducing a property tax, and pursuing rigorous urban development policies with a view of fostering low-rise comfortable suburban areas capable of competing with the centre.

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S P A C E D

POLITICS

Towards the Superpark
Introduction
The Driving Forces of Dormitory Moscow
Social Atlas of Moscow
The Productivity of Microdistrict Landscapes
Brief Conclusions
Ecology of the Periphery

Towards the Superpark

Alexei Muratov, Olga Vendina

Introduction

Politics and management are closely intertwined and require simultaneous resolution of problems that have built up. The challenges of the present day must be met and the outline of the future must be determined. While the tasks confronting the authorities of a city are vast, resources and managerial capacity are usually limited. The administration of any megalopolis comparable to Moscow has no instrument that will give it total control over the social and economic processes. But the authorities are nevertheless strong enough to influence these processes. Moreover, the impact of managerial decisions is usually not limited to a single field of the urban economy or to a single area of the city or social group. Action taken by the administration leads, sometimes with unpredictable results, to 'cross-fertilization' of diverse and often multidirectional processes.

Urban-development policy requires coordination of decisions taken by various subjects (population groups, municipal authorities at various levels, business, experts in urban development), whose interests do not always coincide. In establishing the standards and rules governing organization of urban space and the forms which this space may take, urban-planning policy has a direct impact on citizens' social and economic life. And this is true both of entire megalopolises and their regions and of particular districts, buildings, and courtyards. Largely it is this policy which is responsible for creating an organic and effective connection between two kinds of environment – the social and the object-spatial.

The part of Moscow which is the focus of this investigation is the 'prefab bublik' [bublik: a ring-shaped type of bread with a large hole in the middle], a belt of microdistricts intermixed with parks and industrial zones, may be defined as a double periphery. As in the case of the outskirts, in this area the role of centre is played, on the one hand, by the historical core of the city and, on the other, by its administrative boundary, which largely coincides with the MKAD (the Moscow Ring Road). The peripheral character of districts in the 'prefab bublik' relative to the historical centre is reinforced by the policy of creating 'new centralities' around the transport hubs that are being created on the Small Ring of the Moscow Railway

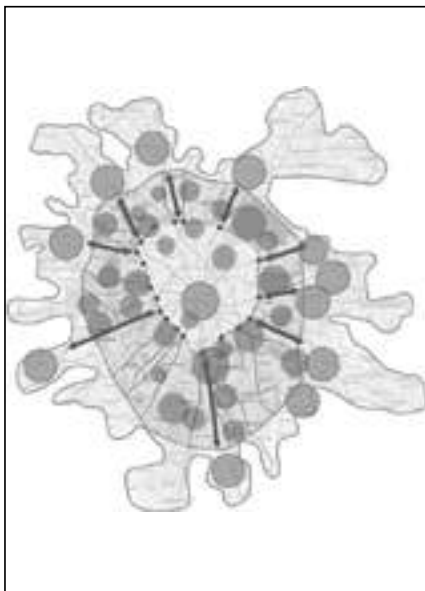


FIG. 1 Along with the process of Moscow Agglomeration development, 'prefab bublik' gradually becomes a double periphery. The peripheral character of districts in the 'prefab bublik' relative to the historical centre is reinforced by the policy of creating 'new centralities' around the transport hubs that are being created on the Small Ring of the Moscow Railway (MKMZHD). At the same time, centers of the second order will continue to emerge on the outer part of the Moscow Ring Road.

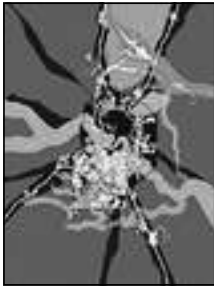


FIG. 2 The concept of continuous centrality is illustrated with the proposal made by Bernardo Secchi and Paola Vigano for the Moscow agglomeration development competition (2012). New territories are getting more densely developed within the bound of a square, more or less naturally growing from the urban fabric of the Moscow's southern-west

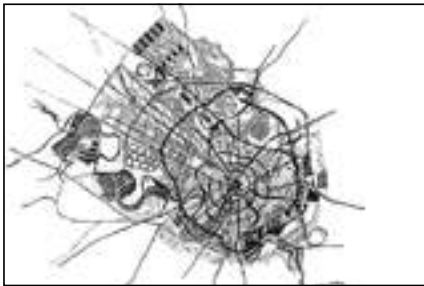


FIG. 3 An expression of the continuous centrality idea is the famous parabola by Nikolai Ladovsky (1930) who proposed a linear scheme of Moscow city development in north-western direction (towards Leningrad).



FIG. 4 A picture of microdistrict rehabilitation, developed by participants of the Grumbach – Wilmotte consortium for the International competition on the Moscow Agglomeration concept (2012).

(MKMZhd). With respect to the MKAD, the creation of peripheral suburbs is being reinforced by two processes. First, by the emergence of a necklace of secondary centres during the process of development of cities outside Moscow which have the best transport links with the capital (Mytishchi, Balashikha, Khimki, Krasnogorsk, and so on). Secondly, by the fact that large state, private/state, and private development projects (Skolkovo, A101, Bolshoe Domodedovo, Myakinino, the International Finance Centre in Rublevo-Arkhangelskoe, and so on) are being realized in nearby parts of Podmoskovie.

The role of double periphery raises the question of whether the model of orchestrated polycentric development can be viable and constructive. With respect to Moscow, the spatial image of 'expanded centrality' is embodied in the parabola proposed by architect Nikolai Ladovsky in 1929. Ladovsky's concept proposed densification of the city's development around a single axis running from the historical core to the north-west. Similar to this is geographer Boris Rodoman's concept of the polarized biosphere, a concept based on the idea of the intersection of two independent and fairly separate communicational networks, each of which possesses its own centres and hubs. One of these networks is formed by man; the other, by nature. The corridors for manufacturing and transport leave room for areas of greenery which will support biological diversity on the urbanized territory. The liquidation of one of these networks under pressure exerted by business means, writes Rodoman, the transformation "of the polarized biosphere into a paralyzed one."

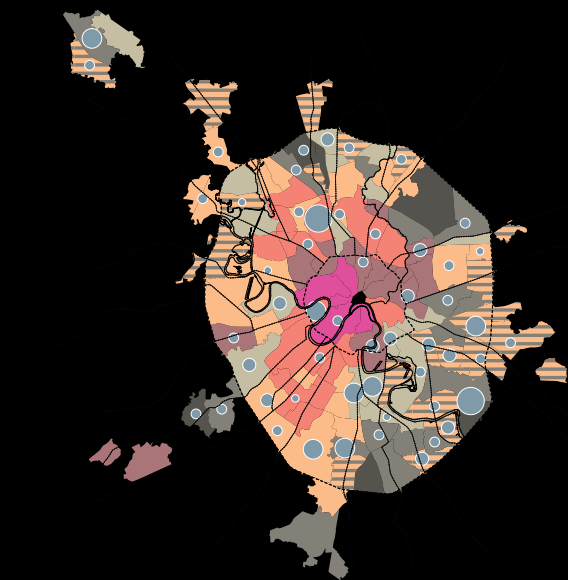
The ideas of expanded centrality and the polarized biosphere make it possible to look anew at the 'prefab bublik' and its role as a double periphery. By preserving peripherality in the megalopolis' business and transport networks, the districts of the 'bublik' are capable of becoming hubs (centres) of social networks and social infrastructure and a support for Moscow's ecological framework — a kind of Superpark. This image may be treated on the one hand as a modernization of Ebenezer Howard's garden city, an idea which has been reinterpreted in different ways in almost all 20th-century urban-planning concepts, and on the other hand as an attempt to look at the megalopolis from the point of view of the German philosopher Peter Sloterdijk, who has developed the theory of the modern world as a self-forming gigantic 'greenhouse' which guarantees increasing numbers of people the right to comfort — both physical and spiritual.

The Superpark is in a sense an antithesis to the Supercity — the latter being a space with a high density of social and object environment supported by super-intensive flows of finance, trade, transport, and information. The model based upon the close co-existence of the Supercity and Superpark, which respectively contain places of tension and places of relaxation, raises the question of the differentiated development of the megalopolis, an approach which aims, in a way which is characteristic of the post-industrial epoch, to seek out and make manifest potentials on the basis of differences.

The Driving Forces of Dormitory Moscow

In talking about the forces driving the development of Moscow's dormitory districts we proceed from the premise that politics is of more significance

Economic cross-section of Moscow districts



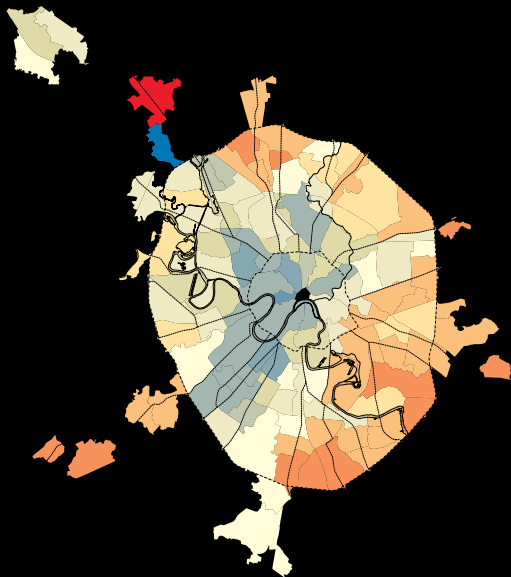
Types of Moscow districts

- Hyper-industrial
- Industrial
- Transit in the process of de-industrialization
- Industrial-service, transportational
- Service
- Posindustrial
- Sleeping-service
- Sleeping – working

Amount of trade points on markets

- >2000
- 1000–2000
- 500–1000
- 100–500
- 0–100

Pro-reformist and pro-Soviet votes



G. Zyuganov > M. Prokhorov percentage points

- 9
- 7
- 5
- 3
- 1
- 0

M. Prokhorov > G. Zyuganov percentage points

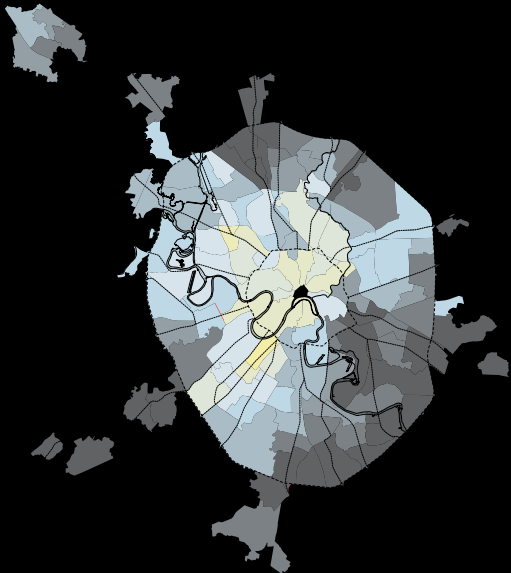
- 17
- 15
- 13
- 11
- 9
- 7
- 5
- 3
- 1

Hundred cities of Moscow



- 1. up to 50 thousand people
- 2. 50–100 thousand people
- 3. 100–150 thousand people
- 4. 150–200 thousand people
- 5. over 200 thousand people
- 6. city-millionaire

Mayoral elections, 8 September 2013
Sobyanin's electoral support
Elections result — 51.37% of voices



% of the voiced Sobyanin made in the districts

- >55
- 53–55
- 51–53
- 49–51
- 47–49
- 45–47
- 43–45
- 41–43
- 39–41
- 37–39

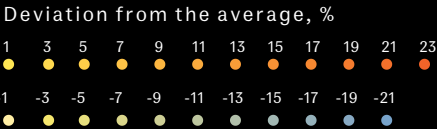
MOSCOWSTAT, 2011

Moscow population census, 2010

Central Election Commission of the Russian Federation, 2012

Central Election Commission of the Russian Federation, 2013

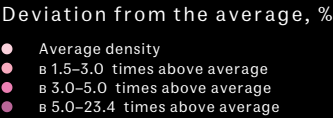
Social capital: higher education level.
Average for Moscow (2010) – 40.1%



Social capital: distribution of people
without residence permits.



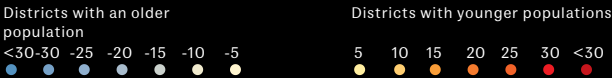
Moscow population census, 2010



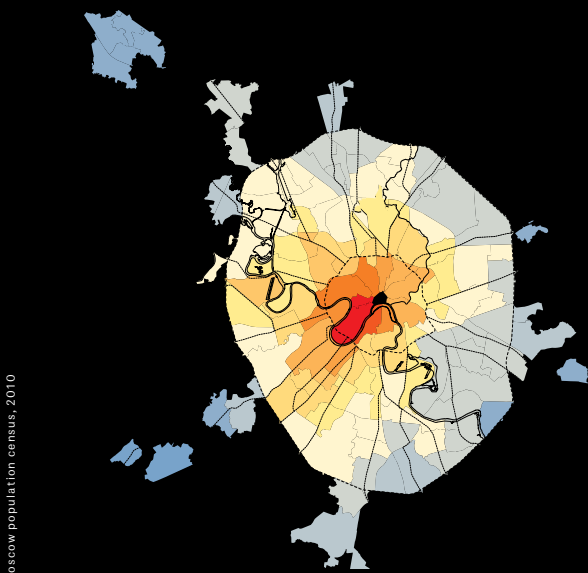
Moscow growing old
Population over 55 years old



Importance of average age group of district population.
Deviation from the average Moscow valuation 26.6%



Moscow real estate market, October 2013.
Cost of 1 km² in the secondary housing market



Moscow population census, 2010

Deviation from the average for Moscow –
171200 rubles/km²



www.domovay.ru



FIG. 5 Post-industrial and industrial Moscow. Illustration from the Social Atlas of Moscow, developed by Olga Vendina (consortium I'AUC) for the International competition on the Moscow Agglomeration concept (2012)

than economics. Politics has always been and remains an open process; this implies not just the possibility for the public to influence decision-making, but also the impossibility of ducking the challenges of the age. Urban-planning policy cannot simply be chosen by those in power; the choice must involve the general public as the subject of political self-determination in its collective forms. This participation will allow the authorities to carry out a relatively effective policy on a city-wide scale and to improve the quality of people's lives, including by delegating decisions on issues involving particular communities to be resolved locally.

The possibility of realizing this kind of scenario is not uncontroversial. The need for an independently organized habitat for daily life, and for the latter's regulation by rules which are unambiguous and comprehensible to citizens is, according to Russian sociologists, contradicted by the arbitrary regulation of civil and property rights as practised by Russian institutions of power today. The transition from centralized policy to a redistribution of managerial responsibility generates questions to which there are as yet no unambiguous answers. Is society ready to shoulder this responsibility? Are the authorities ready to confer this responsibility on the general public? At the present moment communication between the authorities and the general public in Moscow is clearly not functioning properly. The series of elections which took place in 2012 and 2013 demonstrated all too clearly that those who trust the present authorities and those who are trusted by the same authorities at least as far as concerns electoral support place their faith in paternalistic policy. And, on the contrary, those who believe that the state should service and not nanny society are not happy with the present authorities. Representative and participatory democracy are not one and the same thing. Democratic electoral procedures serve as one of the most reliable and most common ways of ensuring the ruling authority's legitimacy, and voting at elections is the simplest form of democratic participation by the populace in political management. However, the legitimacy of the ruling authority is not merely an objective juridical right to political power confirmed by a public vote, but also people's subjective perception based on their recognition of the ruling authorities, trust in the latter, and people's sense of their own involvement in management decisions. Between these two forms of democracy there is a complex relation. Growth in the number of social groups whose interests are not represented in traditional electoral political and public institutions usually impels people to switch from conventional forms of participation in politics (elections, active involvement in a party, etc.) to direct action. Growth in the importance of public associations advancing political demands likewise occurs as a result of the need to resolve local problems. The defenders of the Moscow's Khimki Forest or the opponents of the reconstruction of Leninsky prospekt are good examples. Participatory democracy is beginning to prop up representative democracy, putting pressure on the authorities in matters relating to the realization of projects, changes of policy, and the adoption of laws. Russian sociologists do not rule out that in the Russian political context it is "public organizations, and not political parties (most of which do not express the interests of any social group) that will be able to represent citizens' interests, convey their requirements to the authorities, and keep a close eye on their fulfilment."

It is not just the lack of trust that stands in the way of a division of responsibility between the authorities and the general public, but also Muscovites'

Muscovites' trust in Moscow authorities

TABLE 1

	2001*		2012**	
	DO NOT TRUST AND RATHER NOT TRUST, %	FULLY TRUST, %	DO NOT TRUST AND RATHER NOT TRUST, %	FULLY TRUST, %
MOSCOW GOVERNMENT				
PREFECTURES IN ADMINISTRATIVE DISTRICTS	33.5	12.4	38.4	10.9
	39.4	5.7	34.0	13.8
DISTRICT COUNCILS	42.7	4.0	32.8	13.6
	32.8	6.3	33***	1***
MOSCOW CITY DUMA (REGIONAL PARLIAMENT)	45.1	2.1	29.7	15.3

15 * Civic participation. Social capital and prospects and outlooks of democratic governance in Moscow. IGRAN (Institute of Geography of the Russian Academy of Sciences) 2001. ** People in Moscow giving feedback on quality of work of local executive authorities. Analytical report by the Moscow city department for media and advertising. 2012. *** What Muscovites say about the city parliament. Press-release by Levada-Center. 10.10.2012

low level of understanding of the functions and powers of various bodies in the city's system of management. Moscow City Hall proceeds from the fact that power at district level is divided between local upravas [district councils representing the Government of Moscow] and municipalities, which are local-government bodies. The former have money and the right to dispose of property and land, while the latter have mainly recommendatory and supervisory functions. Recently, however, there has been an expansion in the powers possessed by members of municipal assemblies. 'Priorities for the development of Moscow', a programme drawn up by the Moscow Government, reveals that members of municipal assemblies now possess a number of managerial powers relating to capital renovation of housing and landscaping of courtyards, and the right to veto erection of religious buildings, garages, trading kiosks, and other small-business structures in their districts. They are likewise empowered to require reports from district upravas. Moreover, these representatives are now responsible for interacting with the general public and non-commercial organizations.

At the same time, Moscow is seeing intensive development of grassroots initiatives relating to housing problems, ecology, and ways of spending leisure time. Civil activists often manifest themselves as socially responsible people who turn to collaboration in order to resolve communal problems. Just as common is spontaneous public activity. Arising due to a coincidence between the interests of various persons and the mobilizing power of the net, these initiatives appear and disappear with equal speed. We have to wonder whether such activity can be transformed into routine work focusing on the functioning of a particular house or courtyard. The answer to this question requires that people's ideas of civil society or the urban community should

be as clear as their understanding of the central urban authorities.

There are different interpretations of civil society. The most authoritative of them is based on the ideas of Thomas Humphrey Marshall on citizenship as full membership of society. Most consonant with the objective of involving residents in management of the city are the ideas of Ernest Gellner, who understood civil society as a field of interaction between, firstly, institutions of differing origin and area of focus and, secondly, individuals and groups guided by different motivations. According to the definition given by Gellner, "civil society is a totality of various non-state institutions which are strong enough to serve as a counterbalance to the state and, without preventing the latter fulfilling the role of arbiter and peacekeeper between the principal groups of interests, to restrain its tendency to dominate and atomize the rest of society."

In Moscow, official power structures are clearly dominant, yet ordinary people are notably less ready to take part in the activities of public organizations and the realization of civil initiatives than in many European countries. Less well-known is the interpretation of civil society which belongs to the Russian philosopher Boris Kapustin. First, Kapustin casts doubt upon the thesis that the institutions of civil society are independent of the state: their existence, he argues, is largely determined by the existing political and legal regime. Secondly, he points out the conservative and archaic character of many civil institutions – institutions which are often overly bureaucratic, hierarchical, and even authoritarian in a way which is completely at odds with the principles of freedom and solidarity. Thirdly, he draws attention to the fact that NGOs are dependent on financial support and likewise frequently on the egoistic and vested interests of their leaders.

Since there are many groups and many needs, ideas of the communal good by no means always coincide. Standing up for the common good becomes a continual debate and conflict-ridden 'bargaining process' and requires people to come to an agreement with one another. Rivalry between different groups of interests in this case is a necessary condition of preserving the most attractive qualities of a particular place. Given that civil participation may take very different organizational forms, civil associations are not a constant structural element of society, but a "characteristic of its self-transformation which comes and goes." In other words, civil society is not a totality of different institutions, but a means (practice) of resolving acute problems and accumulated contradictions. In spite of criticism of the view expressed by Kapustin, his theory provides a good description of the rise of civil engagement in Moscow in the winter of 2011/2012 and the development of web-based forms of civil activism.

Urban communities often consolidate around protest organizations arising in response to actions by the authorities or business which are seen in a negative light. Protest is simultaneously evidence of public problems and a mechanism for ensuring that these problems are tackled by decision-making. In spite of the importance of protest movements, for a specific urban policy it is important to have an understanding not just of what should not be done, but also of what should be done. Here the leading role is played by project initiatives. The abundance and diversity of projects initiated by public activity is a sign of the community's creativity and its ability to find resources for development in everyday life. The Moscow administration is

usually distrustful of urban activism and the possibility of using the energy of public self-organization as a basis for developing the city. The programme 'Priorities for the development of Moscow' states as follows: "Only a third of respondents (in social opinion polls conducted in Moscow) are prepared to coordinate with the authorities. Of these only 5% are ready to put forward specific proposals; the remainder express a readiness to monitor the activities of the authorities." However, the degree of readiness to take part in participatory democracy as revealed by opinion polls carried out by the Government of Moscow is in keeping with that which exists elsewhere in Europe, and the desire to 'monitor' is explicable given that it is monitoring of the execution of powers delegated to the authorities that is the key function of civil society.

Systematic undervaluation of the impact of civil initiatives on the life of the city, coupled with an insufficiency of coordination between different institutions, organizations, groups, and individuals, compel us to reflect on the question of whether civil society is really so necessary when it comes to tackling problems of urban development and improving the economic and social productivity of the urban environment (including our Superpark). Is civil society a consumer or a producer of urban goods and resources and districts rich in luxury? Or is it, on the contrary, a driver of economic growth? The answer to this question will determine the degree of priority to be given to the task of forming and supporting civil society and the attention to be given to issues involving cooperation between society and the authorities. The contribution made by civil society to the city's development is multifarious and includes an impact on Moscow's life and economy. The following are examples of this influence:

- protection of the interests of the general public where such interests are not taken into account during realization of large urban-planning projects: e.g. resistance to infill development, destruction of the historical environment, and infliction of ecological damage resulting from construction, etc.;
- provision of social services in fields where the state lacks capacity itself and business is interested only on a selective basis; example are support and socialization of orphans and disabled people, and the fight against poverty by means of involving the least prosperous members of society in social and economic life;
- help for people who are discriminated against by the existing legal regime and current practice in society (such functions are carried out by increasing numbers of organizations whose purpose is to help migrants; other people helped in this way include drug addicts, ex-prisoners, and so on);
- initiation and distribution of social change by means of introducing positive behavioural practices involving a healthy lifestyle, energy saving, and so on, and likewise by means of fighting negative phenomena such as corruption, incompetence among managers, violation of people's political and social rights, and so on;
- support for personal development, stimulation of project-oriented thinking, propagation of human and social capital, and strengthening of trust among members of the public.

All the above effects are very important, but have economic consequences which are difficult to calculate. Reflections on the need for the public to become more involved in urban planning and management usually go hand in hand with a thesis regarding the indirect economic benefits of activation



FIG. 6 Strategy for Moscow library development, proposed by architects SVESMI, together with the famous publisher Boris Kupriyanov, aims to compensate the deficit of public places for interaction between citizens.

of local communities. According to this thesis, the city becomes a beneficiary of positive economic effects arising from a reduction in future losses from non-occurring negative consequences of social and political processes, many of which lie outside the competence of the city's authorities and communities. Such processes include migration, globalization, economic ups and downs, population growth, shrinkage, and ageing, and so on. An important characteristic of 'non-occurring consequences' is the indeterminate scale of possible disasters and so of necessary expenditure on dealing with such disasters.

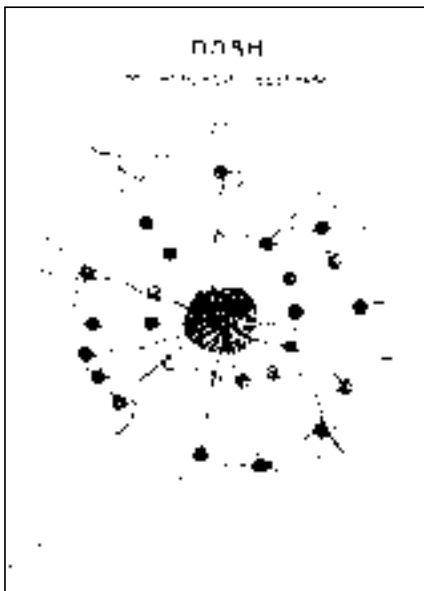


FIG. 7 The necessity to develop a strategy of Moscow development in the regional scale has already been mentioned in 19th century. Big Moscow surrounded by satellite cities in the project by Sergey Shestakov (1926).

What, then, are the potential but nevertheless self-evident positive effects which compel the authorities to share their powers with the public and to make concessions to the desires of activists? Firstly, a reduction in the probability of criminalization of the urban environment. Growth in the number and diversity of forms of urban activity realized in open public spaces entails an improvement in the level of social control over these areas and leads to greater security for the people who occupy them. Secondly, a weakening of tendencies involving segregation. The practice of social 'bargaining' over how districts are to be developed and the involvement of the widest possible circle of participants in this process allow people to get to know one another better, to improve their circle of personal contacts, and to stop feeling social fears and suspicions. This helps to maintain a social mix among the population and prevents its most prosperous part draining away to other districts. The district's positive reputation begins to affect the housing market. The lack of a social practice of coordinating interests, on the other hand, increases the likelihood of conflict, segregation, and ghettoization.

Thirdly, a strengthening of the city's identity. When civil activists play no part in the process of urban management, the result is a weakening of the city's solidarity and identity. This becomes critical when it is necessary to take unpopular decisions or realize expensive social and economic programmes that are of importance for the entire city. The authorities lose the support of the population and their own legitimacy at the same time. Fourthly, division of responsibility for policies carried out between the authorities and the public. Civil activists 'charge' people with their energy and provide examples of an active attitude to life (examples that are, admittedly,

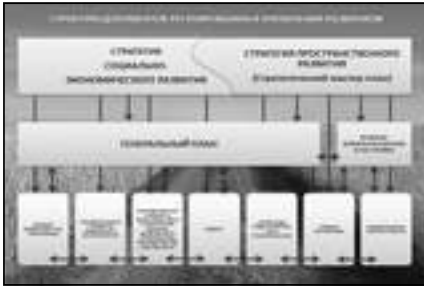


FIG. 8 Structure of the documents regulating development. Author: Alexander Lozhkin



FIG. 9 One-level and two-level models of city planning.



FIG. 10 Development of the Strategic Master Plan and the General Plan of Perm was being held coherently and in-parallel.

not always positive). Vice-versa, absence of civil activists is a factor in maintaining apathy in society. In the latter situation the authorities have almost no one with whom to share the burden of social responsibility. And fifthly, the ability to fine-tune policy, leading to improved efficiency of measures taken. When local communities do not take part in the decision-making process, the consequences are that the authorities fail to understand what is needed by the population in a particular location and programmes realized are 'one size fits all,' with the result that the city's money is spent in an unsatisfactory manner. For instance, children's playgrounds may be installed in accordance with the established standards but in locations where there are practically no children, city festive events may be held where there is no one to watch them, and public toilets may be built at a distance from principal pedestrian routes.

What practical actions can be taken to channel people's energy for self-organization into development of the entire city? Many objectives, such as increasing the level of trust in society or improving residents' knowledge of their district or of one another, may be tackled by means of urban policy. These objectives require people to be motivated individually. It is likewise evident that programmes that are part of urban-development policy cannot be unified or targeted at a notional social majority, i.e. the 'average Muscovite.'

Sociologist Aleksey Levinson is of the opinion that the views of a significant number of residents of Moscow's dormitory districts have changed little since the times of Brezhnev, while their lifestyle has been 'conserved'. But there is another category of citizen who shapes the agenda. These people's identity is largely founded not on differences of class, social-economic position, profession, or status (as was the case in the industrial age), but on shared ideals and values in not just the moral and ethical, but also the behavioural sense. For them urban space is a value, an important component of an interesting and richly packed habitat. The third representative group is those who are united by a feeling of belonging to a particular religion, ethnos, or geographical region. In this case internal solidarity goes hand in hand with a lack of trust in all who are not part of the select circle. The list of groups could be extended by introducing new social-cultural or age-related categories.

Transforming the energy of civil activism into a motor for development of the city or district requires a targeted approach to each urban site. Moscow's districts differ significantly from one another in terms of all the most important social-economic parameters. If, for instance, the district of Trojarevo-Nikulino has a local community which realizes initiative-led projects while the municipal representatives selected from local activists make sure that mechanisms of coordination between the authorities and civic institutions function properly, in Kapotnya the situation is completely different. Kapotnya too has its own community, and there was a time when this community was active in defending ecological safety in the district. Today, however, apathy prevails. So in the first case what is required is to create an infrastructure of support for civil activism with the leading role being played by the local community, and in the second case to involve people in the activities of civil society and to provide information and explanations (here the initiative must clearly pass to the authorities or the city's civil structures).

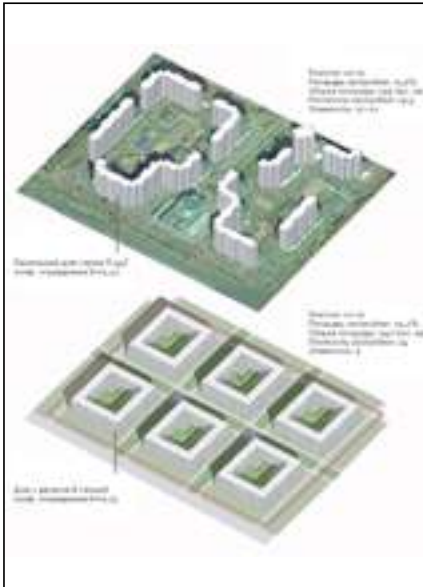


FIG. 11 Comparison of the regional density on Ostrovityanova Street with its 17- and 22-storied sectional buildings, mainly series P-44t, with 9-storied perimeter blocks.



FIG. 12 Redevelopment scheme of one of the Paris suburbs using light construction and small pavilions. From the project of Agence Jean Nouvel, AREP, Michel Cantal-Dupart consortium. Developed for the International advisory board on the Grand Paris (2009).

What kind of infrastructure is necessary in order to help the public organize itself? An infrastructure which helps establish and develop human contacts and promotes the growth of trust among people. Like small and innovation-oriented business, civil society is toughened by reality and an aggressive external environment; but in order to grow, it needs greenhouse conditions. The infrastructure required in order for the public to self-organize requires the creation of centres of interaction and civil ‘incubators’. The role of the former may also be played by existing social and cultural infrastructure such as libraries, houses of culture, and so on. These can be used as the basis for organizing any kind of activity involving socialization of people, additional education, and leisure. The latter, on the other hand, are a new form whose objective is to serve civil society. A civil ‘greenhouse’ could serve as a council of experts or institution offering refresher courses, and provide IT services, various consultations, and, more broadly, a legal and organizational infrastructure for public activism. Important results of the functioning of centres of interaction and civil ‘incubators’ might be an improvement in the social status and public influence of civil activists, a growth in trust in initiatives by such activists, increased transparency of their activities, and improved coordination with the city’s authorities. In addition to policy directed at supporting initiatives themselves, we need a policy for recognizing urban space, given that rapid transformation of social life also depends upon transformation of the latter’s physical setting. Changes in behavioural practice and people’s growing aspiration to organize the life around them are signs of public demand for the realization of both large projects such as construction of metro lines, new main roads, and so on, and small urban forms and engineering structures which improve the coherence of the urban space, its penetrability, safety, friendliness, and ecological safety. This approach assumes that priority will be given to public use of urban space as a communal good in determination of issues of land demarcation and privatization.

The Productivity of Microdistrict Landscapes

Let us now shift our attention from the agglomeration to a considerably more modest scale — that of the mikrorayon [microdistrict] or residential area. The drawbacks of the ‘bublik’-type urban environment are well-known: friability and a low level of coherence of urban tissue, a quality which finds expression, in particular, in a lack of density in the network of roads and streets (which constitute not more than 10% of the total area of such districts); monotonous and monofunctional development; difficulty in creating an active street front; poor articulation of public spaces and of land attached to houses; the need for centralization of utilities provisions for buildings and of measures to put the territories inside each district into good order; and so on.

Another distinguishing feature of this kind of environment and a feature which is largely derivative from the principle of the ‘free layout’ — the principle by which microdistricts were designed and built — is a pronounced lack of balance between density and the proportion of land which has been built up. If the figure for the former is as high as 25,000 square metres/hectare, which is comparable with dense development in historical cities in the Old World, the latter fluctuates in the range of 10–15%, which is 35–50%



FIG. 13, 14, 15 Proposals for managing the multifunctionality of the developmental morphology in microdistricts made by I'AUC consortium for the International competition on the Moscow Agglomeration concept (2012).

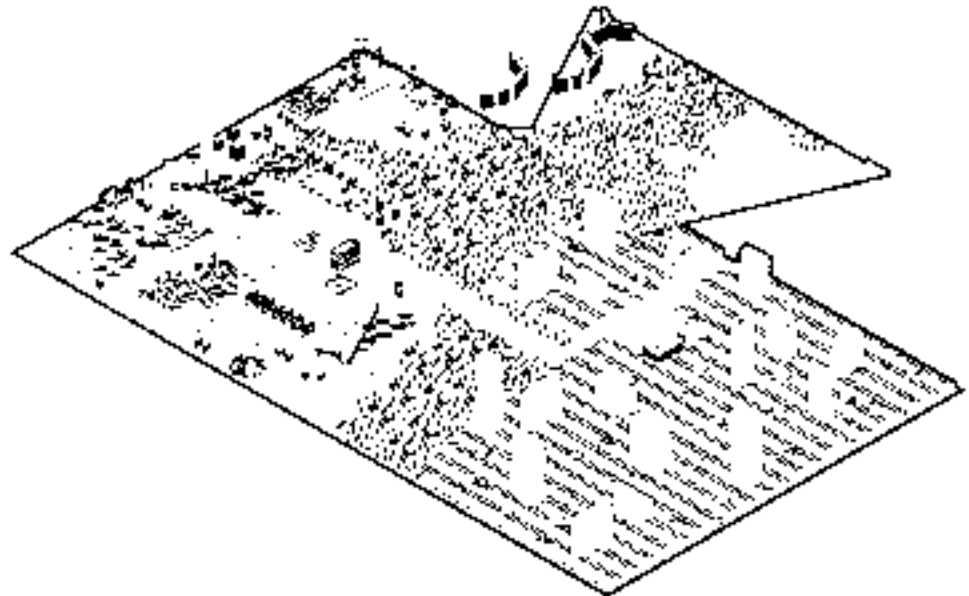


FIG. 16, 17 Via www.moscowidea.ru Denis Smykin suggests to set 'container' modules Prefab (3x3x6 m) in parks and microdistricts. These modules could host shops, show-rooms, café.



lower than in historical street blocks in Europe. Accordingly, while having similar and even higher volumes of construction, microdistricts are characterized by containing large amounts of land which has not been built upon. On the one hand, this circumstance may be considered a drawback. The extensive undeveloped spaces situated inside residential areas constituting approximately one third of the total area of Moscow inside the MKAD (the 'bublik' itself occupies about 90% of this area) require considerable expenditure on their upkeep and landscape. The presence of these empty spaces complicates citizens' lives, forcing them to walk or travel considerable distances in order to reach even the facilities of which they make daily use (shops, social and cultural institutions, etc.). These problems are exacerbated by the fact that these districts have a shortage of public transport. People make active use of cars. As Mikhail Blinkin notes, the level of automobilization of Moscow's microdistricts is at present approximately 400 cars per 1000 residents. These vehicles are mainly kept in spontaneously created open-air car parks which occupy driveways, courtyards, pavements, and so on in areas inside street blocks. The total area of these car parks is so large (according to calculations carried out by Blinkin, it may be more than 40%



FIG. 18 Townhouses and city villas development in the Les Aviateurs block in the Parisian suburbs. Only better articulated the perimeter of the development block and made for a better separation between private and public zones, attracted people with high incomes and consequently raised social capital in the district.



FIG. 19 Scheme of the social facilities in the Khimki-Khovrino district, developed by Taisia Volftrub in the 1970s. Greenery is organized by the following hierarchy: small front garden – residential yard-boulevards and what used to be called 'microdistrict gardens' – city gardens – protective greenery. Each territory has its own function. A small front garden is a green fringe around the building's base, residents themselves take care of this area. Residential yards are recreational for the groups of lowest mobility (children, elderly). Microdistrict garden could be described as an available transit zone, comfortable connection between kindergartens, schools and shops, a place for walking. City gardens are less connected with daily routines and people frequent them on weekends. Protective greenery is mainly intended to preserve ecology, however, every tree in the city acts for the better ecological situation.

of the built-up area) that it is becoming a significant obstacle to the formation of a comfortable habitat.

A necessary precondition for an increase in the social productivity of these microdistrict landscapes is the creation of conditions which will lead to the public becoming constructively involved, together with the authorities and business, in the city's transformation. The first step here should be an improvement in the level of trust present in society and likewise in how well informed people are about what the city administration, including the local authorities, is doing or is planning to do. Support must be given to constructive 'grassroots' initiatives focusing on housing problems, ecology, and leisure activities. This requires, on the one hand, a targeted and individual approach to each particular area – something of which Mikhail Blinkin has also written with regard to provisions for transport on the periphery of Moscow. On the other hand, what is needed is for the city to have an infrastructure of self-organization that will connect civil activism and public space. According to Anna Brovitskaya, this infrastructure might be based on a network of city libraries.

However, the 'centres of interaction' in the microdistricts may also be situated in other places, ranging from premises on the ground floors of residential buildings to quick-build pavilion-type structures. The desirability of filling districts of multi-storey industrial housing with such structures has been known for a long time (this was a theme broached by Jane Jacobs back in the 1960s in the USA). Similar to the above proposals in many respects is the project 'Create your own Life', which was uploaded onto the crowdsourcing website What Moscow Wants. Denis Semykin, the author of this idea, proposes installing on land in the microdistricts temporary 'container' modules which can be placed in groups or individually and are suitable for use as showrooms, small shops, cafes, social and cultural institutions, and so on. Semykin's main idea is to stimulate the development of small business in these residential districts.

The idea of introducing this kind of structure into the tissue of residential development raises the question of the economic productivity of microdistrict landscapes. The existence of large areas of vacant territory may be exploited in order to boost the financial return from districts which have been built up with industrially produced housing. One of the instruments for improving productivity is new construction, including of pre-assembled

temporary structures, as discussed above. In the case of capital buildings, account should be taken of the already high density of development in most microdistricts.

The same kind of systematic approach is required when it comes to transport policy in microdistricts. But if the creation of a more capillary road network and the development of routes for ground-level public transport can bring only indirect economic benefits for the most part, organizing car sharing and especially setting up pay car parks are measures which are capable of giving the city not just an instrument for conducting anti-car policies, but also a source of direct revenue.

Other ways of generating revenue and reducing existing expenditure on upkeep of apartment blocks and residential areas should be sought in alternative energy, improvements in buildings' energy efficiency, and likewise in urban agriculture — a movement which is taking off everywhere from Havana, as described by another of our experts, Brian Evans, to Canada. Downsview Park in Toronto is an example of how urban agriculture may be practised in climatic conditions which are similar to those in Russia. A substantial tract of land in Downsview Park is being set aside for a 'cultivation campus', a place where all who wish to do so may mess around with the earth. The campus is divided into zones which are intended for growing cultures from different corners of the world, in acknowledgement of the multinational character of Canada's largest city, approximately half of the population of which is made up of people who were born outside the country. It should be noted that the latter is something which is inherent in the concept of a garden park (or Superpark in our case). Cooperative tilling of the earth, at any rate, has, since the time of early romanticism been associated with friendship as the most perfect form of relations between people. Here we might quote Nikolay Karamzin, who wrote: "Voltaire at the end of his witty and formless novel says, 'My friends! Let's go and work in the garden!', words which often echo in my soul following tiring reflection on the mysteries of fate and happiness. We might also say: 'Let's go and love our family, relatives, and friends, and leave everything else to the whims of fate!'" Interestingly, this quote is used by the young architects Anastasiya Kozlova and Yuliya Nemova to preface their proposals for the development of agro-cultural centres in Yasenevo, a district of Moscow. Members of the new 'creative class' have sympathy for romanticized agricultural aspirations. This project may be found on the website What Moscow Wants.

The idea of the productivity of landscapes in microdistricts leads us to the question of the value of areas of prefab development as both ecological assets and common goods. The 'prefab bublik', an area which occupies in the region of 900 square kilometres, has both external and internal boundaries, being buttressed by both the Third Transport Ring (TTK) and the Moscow Ring Road (MKAD), territories which have a different structure and different development prospects. While the TTK borders the city's historical core with its specific types of development which are characteristic of the city centre, the MKAD passes next to high-density urbanized formations which form a ring of outer centres that are capable in the future of drawing to them a substantial part of the city's activity. In this situation the 'prefab bublik', interpreted as a Superpark that is a 'double' periphery, must take upon itself the role of internal green belt, an area of 'relaxation of tension' which protects the megalopolis from overload.

Clearly, as times goes by, the importance of the 'bublik' in the context of the Moscow agglomeration will only grow. How can this be taken account of in urban-planning policy? Singapore may serve as an example of extremely



FIG. 20 Vast land ownership (about 70%) by the city government of Singapore allows for a balanced combination of accessible green spaces and highly dense multistoried building development.



FIG. 21 Project of the land survey of a block in Kuntsevo district by the NIPI Institute of the General Plan of Moscow, implies privatization of more than 70% of land sections.

judicious use of land in the public interest. The authorities of this island state with an area of approximately 700 square kilometres started concertedly buying up plots of land in the 1950s. At present, the Singapore government has consolidated 70% of the island's territory in its hands. This considerable resource, together with well thought-out planning, has enabled the Singapore administration not just to put an end to its housing problem, by making modern apartments available to 82% of its citizens, but also to create a harmonious habitat on densely inhabited land, in effect turning the entire island into a 'tropical garden city.'

In general, the actions taken by the current Moscow authorities stand out for their lack of either transparency or a clear conceptual framework. The main decisions concerning territorial development are taken away from the public eye – during the course of sessions of the Urban Planning and Land Committee, which examines conditions for the sale and rental of plots of land, as well as planning proposals, plans for specific areas, and so on. At the same time, since the expansion of Moscow's city limits, the master plan which was approved in 2010 has in effect been stripped of its practical relevance, while Moscow's Rules for Land Use and Development – a public document which sets out urban-planning rules that apply to all plots of land in the city – have yet to be drawn up and passed into law, although this is something which has been promised many times. Evidence of the lack of a clear position on the part of the Moscow authorities with regard to a land-demarcation strategy is that, in spite of the active preparation of land-demarcation projects, only a very few of them are being presented at public hearings. And, as a result, it is only a very small number of plots of land that are being registered in the land cadastre. At the end of 2012 only 50 lots with houses standing on them had been registered as private property.

It might seem that 'killing two birds with one stone' – demarcating residential areas while preserving a resource for subsequent development – would be facilitated by a flexible approach to determining the borders of plots of land, with their dimensions varying considerably depending upon the specific situation in a particular location or particular microdistrict. However, the current legislation limits the room which the authorities have available to them for manoeuvre. Plot sizes are standardized – and in the case of areas of land, which have already been built up, use has to be made of the urban-planning rules and standards which were in force when an area was originally developed. A way out of the situation in which the totality of houses' plots of land as calculated in accordance with the regulations exceeds the total area of land to be demarcated has been suggested to the authors of the project by another statute of the Urban-Planning Code, part 1 of article 43, which states that the dimensions of lots may be established "taking into account actual land use". In practice this results in a two-step operation: the areas of lots are calculated in accordance with the regulations and then a decreasing coefficient is applied, making it possible to keep the proportion of land for public use to within the same 15–30%, a substantial part of which is accounted for by existing streets and roads. We should note that due to the indeterminacy of the notion of 'actual land use', and likewise due to the absence of decreasing coefficients from legal documentation such as urban-planning rules and regulations, there are serious grounds for the dimensions of lots that are established using these methods to be challenged in the courts.

The plots of land arrived at in this way are nevertheless large. Analysis of several projects for demarcation of microdistricts in Moscow gives us the following figures. The average ratio of the area of a lot occupied by a house

to the total floor area of an apartment house is 0.6-0.7. The average area of a single lot occupied by a house is approximately 0.8-0.9 hectares. Land which has not been built upon exceeds the footprint of the building occupying the land by 5-6 times – which is ten times more than the minimal size for plots of land for private apartment blocks in Singapore (where the minimum is 600 square metres for density of development at 14,000–16,000 m² per hectare and 800 m² for 21,000–28,000 m² per hectare). Our standard allowances are also larger than the minimal sizes set for plots of land attached to houses in Germany, where the minimum gap between the perimeter of the lot and the outer edge of the building is three metres, giving a relation of plot area to area of footprint of approximately 1.7. In France, on the other hand, there are no standards regulating the sizes of house plots in demarcation of built-up areas (these dimensions are determined by the area layout project – making it possible to vary the establishment of boundaries between public and private).

From this it follows that if the procedure prescribed by the law is to be followed (Rules for Land Use and Development, including urban-planning regulations, are to be drawn up and adopted, followed by the execution of layout projects on the basis of the latter document), the land-demarcation projects drawn up in accordance with the layout projects may contain plot dimensions which differ from those which were established by the standards at the time that the areas were built up. Thus existing legislation nevertheless contains scope for a more flexible land-use policy. The question arises of how this policy is to be determined. To answer this question, it is appropriate to study the distinct advantages and drawbacks for the authorities and citizens in the event that the two alternative approaches to land demarcation are realized. The former follows regulations which allocate to individual buildings at least 70% of land in a microdistrict. The latter is more restrictive, demarcating minimal lots based on a gap of 1–5 metres between the perimeters of the lot and the building (tables 4 and 5).

From the point of view of both city and inhabitants (property owners, but others as well), both approaches have their strengths and disadvantages. Possession of a resource such as land involves both certain opportunities and certain outgoings (mainly financial). For the purpose of realizing a strategy of creating the Superpark, the second approach, which we provisionally called the 'Singapore' option, is overall preferable. This option requires three things above all:

- a clear urban-planning policy must be formulated and its medium- and long-term objectives and possible bifurcations understood;
- there must be a class of highly-qualified technocratic managers;
- a systematic and at the same time differentiated, targeted approach must be taken to areas of land.

In addition to everything else, the latter approach makes it possible to conduct urban-planning policy with a sufficient measure of realism. If it seems too difficult a task to draw up high-quality Rules for Land Use and Development and area layout projects for the entire city in the near future, then it is necessary to concentrate on a limited number of plots of land whose systematic development is regarded as a priority. Quite possibly, in this respect it is worth looking at the experience of France, where the status of Sensitive Urban Areas (ZUS) – i.e. areas requiring urgent intervention – was introduced in 1996. Selected in accordance with a number of criteria highlighting social, economic, and urban-planning problems, the Sensitive Urban Areas

have become places where society and the authorities concentrate their efforts to improve the habitat. Quite possibly, it would make sense to begin creating a Superpark with districts such as Zapadnoe Biryulevo, which Mikhail Blinkin has defined as “hopelessly unliveable”. For the moment, unfortunately, this description is confirmed by daily reality.

Brief Conclusions

Here we deal only with a small number of the most urgent measures which in our opinion should be taken with regard to the Moscow periphery, which we have here called the ‘prefab bublik.’ The following theses summarize what has been said above:

- Each district in the ‘bublik’ and each territorial area that is part of it requires an individual, tailored approach. This goes for all aspects of the life of Moscow’s microdistricts, including social, economic, transport, and territorial development.
- In order for the energy of civil activism to become a motor for the development of the dormitory districts, it is necessary for an infrastructure to be created which will support the general public and help them to organize themselves. This infrastructure, including centres of interaction and civil ‘incubators’, may resemble institutions for supporting small business and may be based on a network of municipal libraries.
- To preserve the distinctive character of the ‘prefab bublik’ and develop it in a balanced fashion as part of the system of extensive urbanized areas which encompass Moscow and Podmoskovie, it is necessary that a unified urban-planning policy be conducted for the entire agglomeration. There exist simple methods which can be used to set this process in action without requiring changes to Russian law.
- An important element in a well thought-out and realistic urban-planning policy is the combination of medium-and long-term strategies of territorial planning. We have used Perm as an example of how this kind of strategy can work. If Moscow wishes to go down the same route, we recommend that a corresponding amendment be made to Article 25 of Moscow’s Urban-planning Code.
- We recommend conducting demarcation of at least the most problematic districts on the basis of Rules of Land Use and Development and area layout projects. In our opinion, federal and Moscow legislation stipulating that the dimensions of plots of land are to be determined on the basis of the rules and regulations which were in force when the area of land in question was built up does not follow the logic of the development of Soviet microdistricts and may lead to considerable constraints on their subsequent development.

In conclusion, we note that it is no less important that the authorities should draw up an articulated and publicly declared development policy for Moscow. During the course of our research we have become convinced that no such policy exists at the present time, and that the rhetoric and actions of Moscow’s administration are mainly dictated by various fleeting interests. In spite of the Moscow authorities’ evident skill in manoeuvring, we would like to see them develop an overall strategic vision. Possibly, the research we have just completed may help with this objective.

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- 2 See Sloterdijk, P., Sferiy. Plyuralnaya sferologiya. T. III. Pena. Per s nem. K.V. Loshchevskogo, St Petersburg: Nauka, 2010. German edition: Sloterdijk, P., Sphren. Plurale Sphrologie, Band III, Schme, Frankfurt am Main: Suhrkamp Verlag, 2004.
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- 4 See: the maps of the elections in the atlas 'Moscow outside the historical centre: urban districts and their social faces',
- 5 On the relation between representative and participatory democracy, see, for instance, Patrushev, S. V., Ayvazova, S.G., Kertman, G.L., et al, 'Trust, civil action, politics: the experience of 'old' and 'new' democracies' in Rossiya reformiruyushchayasya. Otv. red. Gorshkov, M. K., Vyp 7, Moscow: the Institute of Sociology at the Russian Academy of Science, 2008, pp. 518–540.
- 6 Priorities for the development of Moscow: 'Moscow: a livable city', the Government of Moscow, 2012, Pp.126–127, dep.ir.ru/UserFiles/File/akt_dok/Moscow_programm_2.pdf.
- 7 This section dealing with grassroots initiatives and activism was written with help from Natalya Volkova.
- 8 For instance, the movement of 'spontaneous urban planners' who support people's right to "free expression or action aimed at re-thinking and restructuring the urban environment" (cited from the Partisan Urban Planners' Manifesto, partizaning.org/?page_id=6).
- 9 Marshall's best known and most quoted work is 'Citizenship and Social Class' in Citizenship and Social Class and other essays, Cambridge: University of Cambridge Press, 1950, Pp. 1–85.
- 10 Gellner, E., Usloviya svobody: grazhdanskoe obshchestvo i ego protiviniki, Moscow: Moskovskaya shkola politicheskikh issledovaniy, 2004, p. 14.
- 11 Kapustin, B. G., Grazhdanstvo i grazhdanskoe obshchestvo, Moscow: Izd. GU-VShE, 2011.
- 12 Kapustin, B.G., op. cit.
- 13 See, for instance, Malakhov, V. S., 'Citizenship as an object of social and philosophical theory: a critical introduction' in Kapustin, B.G., Grazhdanstvo i grazhdanskoe obshchestvo, Moscow: Izd. GU-VShE, 2011, Pp. 7–51.
- 14 Priorities for the development of Moscow: 'Moscow: a livable city', the Government of Moscow, 2012, p.125, dep.ir.ru/UserFiles/File/akt_dok/Moscow_programm_2.pdf.
- 15 This question has been analyzed in detail in A. Auzan and V. Tambovtsev's article 'The economic significance of civil society' in Voprosy ekonomiki, No. 5, 2005, Pp. 28–49.
- 16 See the Sociology section by A. Levinson.
- 17 Bronovitskaya, A., Prizyv sovetskogo rezerva. Biblioteka kak platform dlya formirovaniya gorodskikh soobshchestv. Superpark Library series, Moscow, 2013.
- 18 See Blinkin, M., Tramsportny aspekt upravleniya territoriyami mikrorayonov, A similar figure has been recorded in London and Paris; in New York the number of vehicles per 1000 inhabitants is 210.
- 19 "Districts (microdistricts, residential neighbourhoods) situated in the 'prefab publik' need, for a start, to be carefully categorized in terms of objective characteristics describing their strengths and weaknesses from the point of view of transport". Blinkin, M., op. cit.
- 20 Bronovitskaya, A., Prizyv sovetskogo rezerva. Biblioteka kak platform dlya formirovaniya gorodskikh soobshchestv. Superpark Library series, Moscow, 2013.
- 21 See Jacobs, J., Smert i zhizn amerikanskikh gorodov, Moscow: Novoe izdatelstvo, 2011. This book (The Death and Life of Great American Cities) was first published in the USA in 1961.
- 22 moscowidea.ru/ideas/proposals/18/. The authors thank Olga Polishchuk, Director of What Moscow Wants, for kindly making this information available to us.
- 23 For instance, through increases in property tax following property price rises in the district due to improvements in the quality of the environment and in connections with other areas in Moscow.
- 24 If, say, the installation of solar panels is a task which may be tackled on the scale of a single house, other technologies require a larger-scale approach. The creation of a system of heat pumps supplying 120,000 m² of development in the city of Tulsa, Oklaholma required an area of one hectare. The payback period for this project, which reduces energy consumption by 60%, was seven years (statistics supplied by SWA Group).
- 25 See Evans, B., Ekologiya periferii
- 26 See Lifshits, A., 'The carrot city. Exhibition of proposals for urban farming in Toronto' in Project International, No. 24, March 2010, pp. 118–119.
- 27 Cited from Karamzin, N. M., Pisma russkogo puteshestvennika. Povesti, Moscow: Pravda, 1980, p.500.
- 28 moscowidea.ru/ideas/proposals/96/
- 29 On this see Misir, T., Publichnoe zhilie v Singapore in the Superpark Library series, Moscow, 2013. This work also contains criticisms of the Singapore model
- 30 See footnote 19.
- 31 www.ura.gov.sg/circulars/text/dchbr/pt1condoflats-dchbr.pdf.
- 32 See Tolkacheva, K., Novaya zhizn bolshikh ansambley.

'Moscow' option. Land-surveying according to standards (about 70% of the district area)

TABLE 4

OWNERS / RESIDENTS	
PRO	<p>A Compensation of wear-and-tear and, as a result, the decreased value of the houses (particularly evident in the fact that the authorities have to buy out the land from the owner before resettling the residents of the dangerous buildings and structures);</p> <p>B Prevention of the infill development;</p> <p>C Limited ability to generate income from the site (organization of paid parking, building additions, placement of temporary structures, etc.);</p> <p>D Opportunity to use the site for recreational purposes (playgrounds and sports grounds, etc.);</p> <p>E Opportunity for formation of local communities based on a common interest in the improvement of their own environment.</p>
CONTRA	<p>A Payment of the land tax;</p> <p>B Financial responsibility for the improvement and maintenance of the adjacent areas;</p> <p>C Risk of de-privatization due to financial insolvency;</p> <p>D Potential complications in the overall improvement and management of the housing and public utilities sector, associated with the possible functioning of several managing companies in the same neighbourhood and different income levels of the owners of the adjoining areas. As a result, a threat of the decreased property values due to environmental degradation;</p> <p>E Lack of opportunities to capitalize on the large number of residents (in particular, entering the wholesale electricity market);</p> <p>F Limited opportunities for the site usage, including profit-making opportunities.</p>
THE CITY	
PRO	<p>A Land tax collection;</p> <p>B No financial responsibility for the improvement and maintenance of the adjacent areas;</p> <p>C Opportunity to use non-surveyed land for urban needs;</p> <p>D Increase in the population mobility and flexibility of usage of the residential areas, including results of de-privatization;</p> <p>E Potential decrease in the cost of resettling residents of dangerous buildings and structures in case of mass de-privatization.</p>
CONTRA	<p>A Loss of significant areas for possible development;</p> <p>B Difficulty or impossibility of complex reconstructions and improvements, including new developments;</p> <p>C Complications in implementing anti-car policy;</p> <p>D Shortfall in revenues from paid parking;</p> <p>E Increased cost of resettling residents of dangerous buildings and structures associated with the necessary land purchases;</p> <p>F Increased cost of constructing the elements of the street and road network and utilities infrastructure due to the necessary land purchases;</p> <p>G Costs of land-surveying, cadastral (public register) registration and creating infrastructure for land tax collection;</p> <p>H Potential risk of districts being isolated and secluded, which is partially as a result of mass de-privatization.</p>

'Singapore' option. Minimum land-surveying (less than 30% of the district area)

TABLE 5

OWNERS / RESIDENTS	
PRO	<ul style="list-style-type: none"> A Minimization of the land tax; B Minimization of the cost of improvement and maintenance of adjacent areas; C Facilitation of district management due to the transfer of a larger part of the area to the same managing company (a district is regarded as a holistic spatial, landscape and technological entity); D Potential for increased quality of the environment (and, hence, the property value) funded with the Moscow municipal budget; E Opportunity for formation of local communities based on a common interest in the improvement of their own environment.
CONTRA	<ul style="list-style-type: none"> A Minimization of the compensation of the wear-and-tear and as a result, decrease in property value; C Risk of infill development in direct proximity to the houses (which increases due to the fact that the management of the construction sector of the capital city announced the necessity of dropping insulation standards, as well as providing less parking spaces, which would cause increased housing density); D Risk of the compensation for shortfalls in land tax collection and municipal levies for the improvement and maintenance of the areas by increased property tax, cadastral land cost and various levies (for example, paid parking spaces); E Impossibility of income opportunities (organization of paid parking, building additions, placement of temporary structures, etc.); F Limited opportunities to use the area for recreational purposes (playgrounds and sports grounds, etc.); G Dependency on the city for the quality of the environment.
THE CITY	
PRO	<ul style="list-style-type: none"> A Opportunities for development and construction of the elements of the street and road network and utility infrastructure (including new developments); B Broad opportunities to manage land, including rent and sale of the land, complex improvements, etc.; C Broad opportunities to organize paid parking spaces and to implement anti-car policies (including car sharing, bicycle paths, etc.); D Broad opportunities for quality control of the environment and, as a result, potential increase in local tax collection due to increase in property values; E Reduction of costs of resettling residents of dangerous buildings
CONTRA	<ul style="list-style-type: none"> A Shortfall of land tax receipts; B Significant improvement and maintenance costs; C Costs of land-surveying, cadastral (public register) registration and creating infrastructure for land tax collection in the low tax collection conditions.

Ecology of the Periphery

Brian Evans

As Robert Venturi famously observed there is complexity and contradiction in architecture and, by extension, in cities (1) – these are played out through many diverse forces – social, political, economic, cultural, developmental. So much of our human endeavour is focussed on these issues – they are clear, they are now and they give us a means of comparison between cities and peoples, we can construct league tables, compare indices and argue for and against different economic, political and social systems.

But cities are held captive by more transcendental forces such as geography, climate and the natural environment. We have been aware of these processes for millennia, we share our experiences of them; we almost never celebrate or disparage others for their good or bad fortune with climate and the natural environment. And yet these processes, as much as any, forge our ideologies, our culture and our way of life. Yet it is only in recent decades that these processes have been brought into urbanism and development as drivers of city design.

The grandfather of this way of thinking is a Scot — Ian McHarg. A Glaswegian by birth, he came to prominence as a writer and teacher during his time at the University of Pennsylvania – a renowned writer on the use of natural systems in regional and metropolitan planning. He created and championed what we would now describe as ecological design. His book ‘Design with Nature’ is a tour de force — perhaps for the first time, McHarg showed not only how natural forces shape our cities but also how they can be used in design as well. The book is one of 5 seminal texts that changed the paradigm of city thinking permanently after the wilderness decades of Corbusier (2).

McHarg’s thinking has been embraced and elaborated by the Canadian Michael Hough who has advanced ecological design with his texts on regionalism and natural processes (3,4). And when the Harvard University Graduate School of Design publishes on the subject, it means it has become ‘cool’ (5). There is a distinction, albeit a fine one, to be drawn between ‘Ecological Urbanism’ and ‘Landscape Urbanism’ that contends that the best way to organise cities is through the successful design and organisation of the city’s landscape and is a growing movement which first appeared in the 1990s as

a form of response to the codes of New Urbanism and the desire for comprehensive visions (6). As an organising proposition, 'Landscape Urbanism' is of itself a worthwhile and meaningful pursuit in city development, but perhaps 'Ecological Urbanism' implies a more profound consideration not only of landscape and urban organisation but also a more profound recognition that ecology and natural processes are inescapable drivers of city development as China is now finding to its cost (7).

This approach to the ecology of urbanism has been practiced by Gillespies for many years in projects and publications throughout Europe, the Russian Federation, the Middle East and China. And this approach to the ecology of urbanism underpinned and acted as a key driver in the approach of the Capital Cities Planning Group (CCPG) in the premiated entry for the Greater Moscow Competition – the handling of ecological design was cited as one of 5 key criteria by the international jury when selecting the CCPG submission this as the best design of the new capital city (8).

What then does this ecological approach to urbanism tell us about the periphery of Moscow? Geography, climate and topography give rise to the pre-eminent element in an ecological approach to urbanism – the water system. In this regard Moscow is well provided. There is a plentiful supply of fresh, clean water from the Volga river system to the north through a series of natural watercourses, lakes, reservoirs and canals that serve the City. In turn, the water system supports the second most important factor in ecological design, ground cover, which, in the case of Moscow, is the boreal forest – the 'taiga'.

Whatever may be made of politics, economy and even culture, within this system of forest and water (the green-blue network), the people of the periphery live their lives. The city of Moscow has long recognised the importance to its people of the water system, even if this has on occasions been secured at a terrible price such as the construction of the Moscow Canal by the Stalin Regime. Although today polluted in many places by surface water run-off and abused by culverts and pipes, the system is present and distributed throughout the City (see figure 1) and is recognised in Russian literature and especially art (figure 2 and [9]).

In contemporary urban design, the walkability of places is a fundamental parameter of good neighbourhood planning – 20 minutes to the train station, the shops, and so on (figure 3 & [10]). If this tool is used as an indicator of access to watercourses, it can be shown that the significant majority of people who live in the periphery of Moscow have local access to a watercourse. Figure 4 combines the water system of outer Moscow with the distribution of micro-raions and illustrates that with some notable exceptions such as Ismailovo, Kuz'Minki and Zvablokovo in the east, almost all have

good local access to water-courses that could play an improved and enhanced role in people's lives.

When the average protection strips along water courses is added – somewhere between 25 and 100 metres and on average 50 metres from either bank, there is the basis of a landscape network that could form a system of linear parks that provide the opportunity for walking, running, cycling and, in winter, skiing. The water and forest is therefore the basis of an ecological landscape system that can be used for a wide range of different activities and purposes and the green and blue system of parks, trees, rivers and ponds also becomes a recreational system of paths, trails, pavilions and picnic sites (fig. 5). It is an important and inherited ecological system but it is degraded from neglect in some places and would benefit from the attention that will secure its integrity for the future. This would include cleaning watercourses, additional areas of ecological planting and amenity planting, the construction of trails and recreational pavilions that could also be lit for evening and winter use and an active management regime.

Securing the watercourses and their riparian planting therefore provides the basis of a green-blue system of what is today referred to as green infrastructure (11) and this provides for:

- an ecological resource – a river and forest environment that is clean, healthy and rich in both flora and fauna;
- a parkland resource; and
- an active recreational resource that is therefore a resource for the health of the citizen as well – the health-giving qualities of landscape for both mental and physical health are becoming well-established by empirical research (12).

This approach is of strategic importance to any city, but it also has consequences especially when considering the more detailed level of the micro-raion in Moscow (figure 6). Figures 7 & 8 illustrate ecological design principles thinking at a more detailed scale in respect of a series of raions and the individual raion. Figure 7A shows the existing situation in a typical arrangement of residential neighbourhoods in the periphery characterised by sequences of modernist blocks with large open spaces between them linked to industrial areas and the surrounding forest by transport arteries. This landscape is characterised by large open areas, but these have often become dysfunctional and disjointed and seldom offer the benefits to the local community that they have the potential to deliver. Figures 7C & 7D illustrate diagrammatically how this collection of sites could be integrated into an integrated system of sites through the introduction of trails, planting and ecological and recreational projects.

Figures 8A to 8D look at, in more detail at the possibility of bringing more structure to the landscape system within a micro – along principal streets, in neighbourhood parks and in a series of linear parks along watercourses. Figure 7A shows a typical existing spatial arrangement in a micro-raion. Figure 8B illustrates street corridors, 8C neighbourhood parks and 8D the significance of a linear park along a watercourse that can provide the spine of a landscape system within a community.

To work to its ecological potential the water system needs to be clean and pro

tected, to work to its human and recreational potential there needs to be continuous access along the watercourses and this may create implications for the process of parcelisation of land that is under consideration at the moment. Clean water is the basis of any healthy environment. A polluted watercourse has a negative effect on plants and animals as pollutants are carried through ground water to contaminate whatever is grown in the ground, particularly where this done for human consumption. Clean watercourses cannot be ensured through action at individual locations other than when there is action to cease contaminated discharge into the water system. This means that the corridor along the watercourse needs to be managed and maintained if it is to be successfully kept clean.

In today's harsh economic climate, landscape and ecology needs to be more than just 'a good thing' – it must have some functional and economic use that complements the aesthetic and the spiritual qualities of landscape. In this respect, the current discussion and debate about agricultural production and food supply is informative (13) in advancing the case for the local, sustainable and economic production of food. The social enterprises for urban market gardens in Havana, Cuba have become a reference point such that this thinking is imported even into developed world cities such as London (14).

In Cuba, shortage of fuel and deficiencies in transportation led to an exploration of urban agriculture in Havana to such a extent that by the first decade of the 21st century, over 10,000 ha of dismissed land in the city was given over to urban market gardens produced a significant tonnage of food distributed through social enterprises creating a local economic marketplace for fresh produce such that today this sector produces up to the majority of the city's fresh produce come from local urban farms and gardens employing a workforce in excess of 100,000. This use of underused land for productive agricultural use has a direct relevance to the outer periphery of Moscow and the micro-raions.

The experience of Cuba is perhaps understandable given the imperative for inventiveness that the socio-economic system required. But the lessons from Havana may well have a universal message given the challenges of energy consumption and the pressure to reduce emissions that face both developed and developing cities. London, a world city with over 10 million visitors each year has an ecological footprint estimated by WHO to be over 125 times its surface area or the entire productive land area of Britain to sustain it. According to WHO, a limited amount of agricultural activity still takes place in London, but this is mostly chemical-intensive and focused on arable and livestock production rather than fruit and vegetables which might create greater social benefits. Economic pressure on land means that any efforts to develop a food sector in London inevitably faces developmental pressure from housing and other capital intensive land uses.

But attitudes may be changing. Parks and gardens are highly valued cultural assets and there is evidence from the work of WHO and others (Viljoen & Howe) that this attitudinal change will give greater value to all forms of greenspace within the city including productive agriculture. Current trends in attitudes from other metropolitan areas as diverse as London and Havana together with economic pressures on transportation and fuel emissions suggest that underused land in the periphery of Moscow could be valued as a productive resource as well as for its landscape and ecological importance (15).

It is possible to speculate that this landscape derived approach to regeneration can be equally relevant to former industrial areas. Landscape regeneration of former industrial areas has long been used as a means of cleaning and reimagining areas of former industrial land in western Europe and North America. Good examples include the regeneration of Templehof Airfield in Berlin and Downsview in Toronto.

The Canadian example is of particular relevance given their extremes of climate that are similar to Moscow. Downsview is located in the north of and was originally a farm that was industrialised around Downsview Airport with a former military base and aircraft manufacturing and has recently seen landscape masterplanning used as a means to reimagine the site for the future.

In conclusion, this paper holds that there are four key fundamental characteristics about the ecology of the perimeter of Moscow that should be recognised and addressed in future planning:

- The water system and its protected zones provides a strategic opportunity to create a landscape of strategic ecological value and a recreational network for the people of Moscow;
- This opportunity has implications for detailed land planning in the city – mainly that parcelisation could prevent continuous access along the watercourses that act as the spine of these parkland strips;
- The opportunity has great potential for the physical and mental health of Moscow people;
- The landscape of the Modernist Peripheral City offers significant opportunity to promote productive agricultural landscape of market gardens – vegetable and fruit growing – that might minimise transportation costs of produce brought to market; provide the opportunity for the establishment of social enterprises and can reduce an otherwise significant maintenance burden for individuals and the city.

It is an inevitability of life that most cities focus on economic and social processes and they pursue a future for the metropolitan area and the businesses and citizens that it serves most of the time. However, the landscape and ecology together with the climate of the city and the culture of its people can be very important drivers to help imagine the future of the city. This approach has much to commend it when considering the future of the periphery in Moscow.



FIG. 1
■ The Moscow periphery
— Existing principal road network
■ Existing water network



FIG. 3
■ The Moscow periphery
— Existing principal road network
■ Existing water network
■ Access to water network (30/30 minute walk / 1 km catchment)



FIG. 4
■ Creation of green network linkages
— Existing forest
■ Creation of green network linkages
■ Existing forest
— Proposed forest
— Proposed formal park
— Proposed green boulevards



FIG. 5
■ The Moscow Periphery
— Existing principal road network
■ Distribution of micro districts



- Existing built form
- Existing principal road network
- Existing water network
- Existing open space
- Existing employment
- Existing cultural asset
- Existing forest
- Creation of green network linkages
- Creation of green core
- Raion central core
- Proposed forest
- Proposed formal park
- Proposed green boulevards
- Proposed recreational parkland
- Proposed water cleansing landscape
- Proposed urban agricultural zone
- Proposed urban agricultural market zone
- Proposed path network



- Existing micro-raion footprint
- Existing water network
- Existing open space
- Existing Forest
- Proposed Forest
- Proposed forest
- Proposed recreational/Ecological Network
- Proposed Formal Park
- Proposed Green Boulevards
- Proposed Urban Agricultural Zone
- Proposed Urban Agricultural Market Zone

Around Edges

PHOTO ESSAY

Yuri Palmin

YURI PALMIN

Architectural photographer, works for leading Russian and International architects, educator at the program “Photography. Basic course” at the British Higher School of Art and Design. Laureate of “Silver Camera Special Prize” (Moscow House of Photography, 2001). Collaborates with AD Magazine, Vogue, World Architecture, RIBA Journal, Icon Magazine, Domus, Abitare, Speech, EXIT, Mark Magazine, «Project Russia». Author of illustrative material for the books on contemporary and historical Russian architecture. Has previously collaborated with A.Kirtzova, A.Brodsky, V.Efimov, S.Leontiev.

I immediately accepted the offer to produce a series of photographs, intended to document the space between the Third Transport Ring and the Moscow Ring road. There was a sense of uncertainty and gamble in facing the scale of an area, leaving no chance for a logical and sensible approach in such a short time.

Introspective analysis, the search of a clear and attractive composition, in-depth research of a subject — all these necessary and beautiful activities had to be abandoned. A senseless abyss, terrifying from the first sight, opened up to me. And this was exactly the recipe for such a task.

Here are two curious facts: on the one hand, the administrative division of Moscow strictly matches the geographical toponymy of districts, on the other hand, cardinal directions play no role in the daily orientation of a Moscovite. In the dense fog, day or night, any New Yorker will tell you where the north is. Meanwhile, a Moscovite does not possess such a tool of an internal compass, or a necessity in acquiring it.

The radial and the ring structure of the city and its distinct role in Moscow's mythological geography suggests a new universal model — a unique Moscow-centric model. I have quietly accepted this model, secured my tripod and began to wait while the city itself started to spin around and present me with its views.





































Preservation. Catalogue of the New Heritage

The territory beyond center has been explored in order to find new objects of cultural heritage – the city pearls.

The lists of objects from a number of experts and organizations have been summarized into a single catalogue:

1. Moscow Department of Cultural Heritage, 407 items (official list);
2. Archnadzor, 83 items (valuable historical buildings which do not have an official status);
3. A.Bronovitskaya, 28 items (objects dated 1960-1980, subjectively);
4. O.Kazakova, 19 items (objects dated 1960-1980, subjectively);
5. P.Phillipova, 88 items (environmental city objects, subjectively).

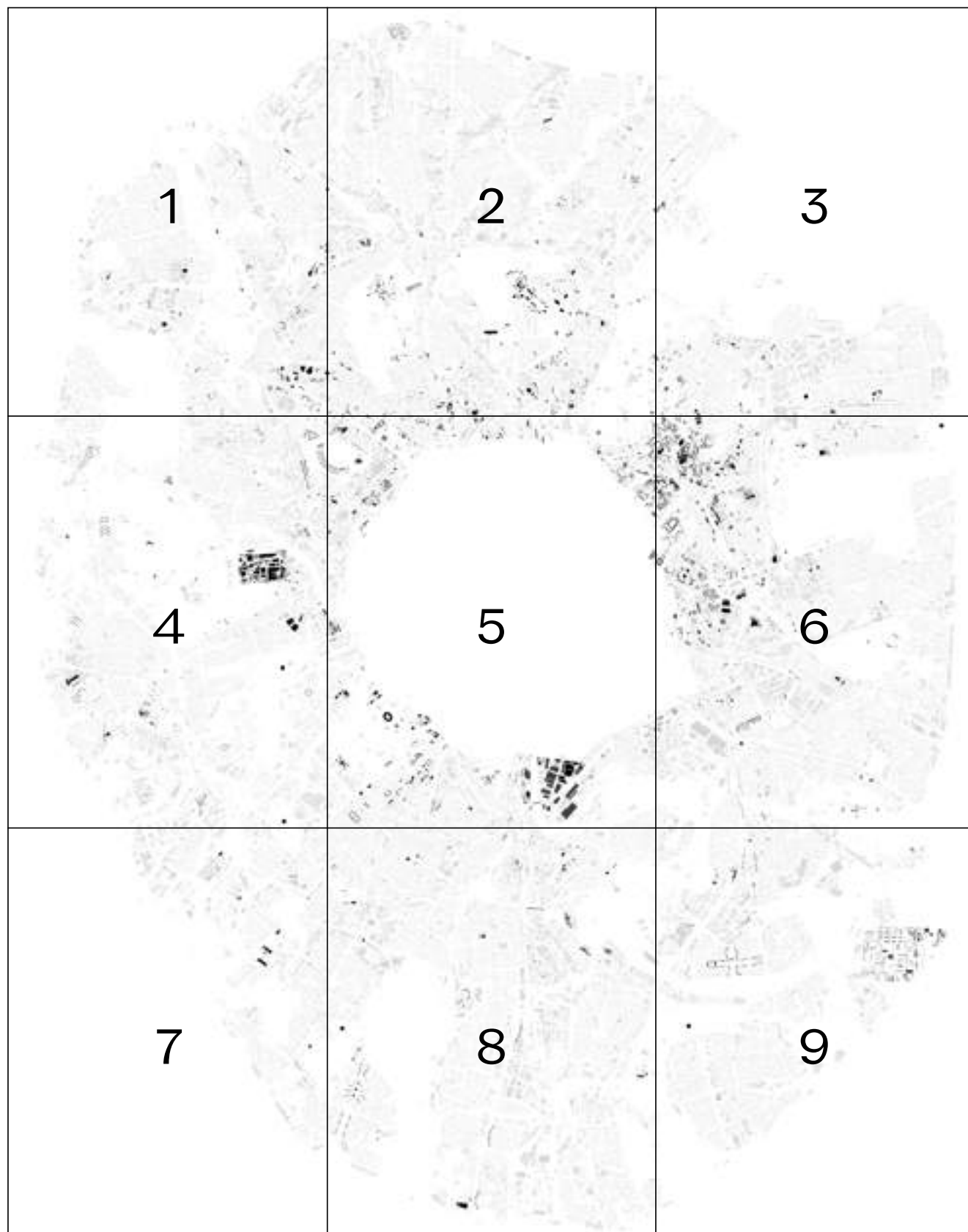
The total number of pearls:

625

The index of objects was made without particular hierarchy, following the map clockwise starting from the Leningradskoe highway.

Most of the objects in the vicinity of TTR (Third Transport Ring Road) are historical buildings included in the list of Moscow Department of Cultural Heritage.

Those which are closer to MKAD are new objects without the preservation status, often they are industrial buildings.



- 1 — The building of the Armed Forces of the Russian Federation Hydro-meteorological Services, 1920s.
- 2 — Building, 1931.
- 3 — The ensemble of buildings in Sokol district, 1955–1957, planned by M. Rosenfeld, A. A. Mndoyantz.
- 4 — Building by M.V. Posokhin, 1940-1950s.
- 5 — The complex of buildings and facilities of the Presnya Station, planned by A.N. Pomerantsev, engineering by S. Kareysha, 1903-1908.
- 6 — The Institute of Invalids campus building by M. Y. Guinzburg, 1929-1930.
- 7 — The ensemble of Nikolayevskie Barracks of the First Don Cossack Regiment and the First Grenadier Artillery Brigade on Khodynka Field by S. U. Solovyov, 1898-1899.
- 8 — The house where poet N. A Zabolotsky lived and work during 1948-1958 (apartment 25).
- 9 — The ensemble of accommodation units by D. N. Chechulin, 1945-1947.
- 10 — The ensemble of buildings in Sokol district, 1955–1957, planned by M. Rosenfeld, A. A. Mndoyantz.
- 11 — The ensemble of accommodation buildings by M. V. Posokhin, A. A. Mndoyantz, engineering by B.S. Lagutenko.
- 12 — Residential community built by German war prisoners in 1945-1947.
- 13 — The ensemble of residential units on Khodynka Field.
- 14 — The Aeroflot Hotel by L. Batalov, B. Budin, V. Klimov.
- 15 — The experimental large-panel in-line house by L. B. Karlik, N. A. Dzhevanshirova, 1964.
- 16 — The complex of the «Znamya Truda» plant, 1920–1930 s.
- 17 — The Tzar Hall of the XV Russian Trade and Art Exhibition by A. E. Weber, A. S. Kaminsky, 1882.
- 18 — Our Lady Vadopedskaya Comfort and Joy Church near Nikolayevskie Barracks on Khodynka Field by V. D. Adamovich, 1907-1909.
- 19 — Accommodation units of Soviet time by D. N. Chechulin.
- 20 — Factory-Kitchen by A. I. Meshkov, 1927-1928.
- 21 — The Central Oncologic Institute of the Department of Health of the RSFSR, Moscow Herzen Oncologic Research Studies Institute.
- 22 — The ensemble of Soldatenkov Hospital by I. A. Ivanov-Shitz, 1915-1925.
- 23 — Zhukovsky Air Force Engineering Academy by A. V. Yuganov, 1936.
- 24 — The Central Aviation House, 1927.
- 25 — The locomotive depot ensemble of the Podmoskovnaya Station by U. F. Dideriks, 1901.
- 26 — Former dacha of Lavrenty Beria, 1900.
- 27 — The Annunciation Church in the Petrovsky Park by F. F. Richter, 1843- 1847.
- 28 — The Apollo Restaurant building in the Petrovsky Park, late 19th century - the beginning of the 20th century. From 1925 the building is occupied by the Central House (Museum) of Aviation and Cosmonautics .
- 29 — Accommodation unit by S. M. Kravets, 1938.
- 30 — Dinamo Stadium planned by L. Z. Cherikover, 1928. The Dinamo Sports Park (part of the Petrovsky Park) by A. Menelas, 1820-1830s .
- 31 — Accommodation unit, 1930s.
- 32 — Two above-ground entrance halls of the Dinamo metro station by Y. G. Lichtenberg, U. A. Revko, 1938.
- 33 — Art School by G. B. Poltz, 1936-1938.
- 34 — The Institute of General and Experimental Pathology. From 1934 to 1961 here worked member of the Academy of Sciences, pathophysiologist A. D. Speransky.
- 35 — Colony of artists (with apartments and studios) by ASNOVA team (U. N. Gerassimov, V. F. Krinsky, L. M. Lissenko, A. M. Rukhlyadev), 1930s-1950s).
- 36 — Tramway depot, the beginning of the XX century.
- 37 — The N. P. Ryabushinsky's Black Swan villa in the Petrovsky Park by V. D. Adamovich, V. D. Mayat (1908-1909) and brothers Vesnin, 1915.
- 38 — Accommodation unit by M. M. Dzisko, L. M. Mochin. Here lived aviaconstructor S. V. Ilyushin, inventor M. L. Novikov, 1953.
- 39 — Accommodation building with artists' apartments by F. M. Krinsky, A. M. Rukhlyadev. Here lived V. A. Favorsky , V. A. Vataguin, Y. I. Pimenov, 1930s.
- 40 — Crafts Fabric by G. P. Goltz, 1933-1934.
- 41 — Colony of Students in Vsekhsvyatskoe by P. N. Blokhin, B. V. Gladkov, A. Saltsman, 1929-1930s.
- 42 — Accommodation unit, 1954. Here lived and worked K. Simonov, A. Galitch, A. Tarkovsky, Y. Naguibin and others.
- 43 — The tomb of Ivan Alexandrovitch Bagration (1730-1795).
- 44 — ЦКБ Almaz by V. S. Andreev, 1952.
- 45 — The architectural complex of the Sokol settlement by I. Kondakov, N. Markovnikov, N. Durnbaum, brother Vesnin, 1925-1930.
- 46 — Complex of buildings and facilities of Serebryany Bor Station by A. N. Pomerantsev, engineering by S. Kareysha, 1903-1908.
- 47 — The Leningrad Cinema, 1956.
- 48 — Ensemble of accommodation units, 1930.
- 49 — Ensemble of buildings around Peschanaya Streets by Z. M. Rosenfeld, P. V. Pomasanov, 1947-1955.
- 50 — Residence hall of former Cooperative Institute by K. Ryabov, 1930-1931.
- 51 — Stroganov Moscow State University of Arts and Industry by I. V. Zholtovsky, 1958.
- 52 — Residential house, XX century. Here in flat number 112 lived and worked poet N. Khikmet.
- 53 — Complex of Sokol-MAI students' residential halls.
- 54 — Zhuk «Water Design» building by G. Yakovlev.
- 55 — Residential complex in the Lebed mikrodistrict by A. Mearson, 1966-1972.
- 56 — School which was frequented by Zoya Kosmodemyanskaya in 1933-1941 .
- 57 — The building of the Podmoskovnaya Station by U. F. Dideriks, 1901.



- 58 — Dinamo Water Stadium by G. Y. Movchan, 1938.
- 59 — Mikhalkovo, the estate of Duke P. I. Panin, late XVIII century, planned by V. I. Bazhenov.
- 60 — The Red Baltian club, 1929.
- 61 — Complex of buldings and facilities of Likhobory Station by A. N. Pomerantsev, engineering by S. Kareysha, 1903–1908.
- 62 — St. Nicolas Church near Straw Lodge. It was built in 1916 upon the project of F. Shekhtel, then demolished in 1960 and it was reconstructed upon the old project almost in the same place in 1997.
- 63 — Dacha, the beginning of the XX century.
- 64 — Academic buidings of Timiryazev Academy by B. M. Iofan, 1962-1931.
- 65 — Residential complex of the Department of Food Industry by A. V. Snegarev, 1936.
- 66 — Accomodation unit, late XIX century.
- 67 — P. I. Lissitsyn's house, 1929.
- 68 — Laboratory building of the National Research Institute of Freezing Industry, 1932.
- 69 — Accomodation unit, late 1930-s.
- 70 — Mikhelson Meteorological Observatory. Complex by N. N. Chernetsov, 1910.
- 71 — The house of priest of Apostles Peter and Paul Church in Petrovskoe-Razumovskoe, 1860. Here painter A. Y. Golovin spent his childhood in 1863-1879.
- 72 — House-atelier of sculptor E. V. Vuchetitch.
- 73 — Petrovskoe-Razumovskoe Estate, late XVIII-XIX centuries. Wing of the palace, XIX century.
- 74 — Complex of buildings.
- 75 — The lighting cupola of the Institute of Structural Physics Research.
- 76 — Straw Lodge village (first mentioned in 1870) over Timiryazev Academy.
- 77 — Boiler-house, 1899, 1927. first half of the XX century, the beginning of the 2000s.
- 78 — 1920x rr Silk-mill, 1899; by M. S. Shutzman, 1911-1913; A. P. Semiletov, late 1920s.
- 79 — Objects of modern construction.
- 80 — Club of the Svoboda Factory, established 1843.
- 81 — Accomodation unit by L. V. Stezhensky, 1903.
- 82 — Tenement building by I. A. Stakanov, 1913.
- 83 — Mitrofany of Voronezh Church over Prince of Oldenburg's orphanages and house of the clergy, XIX century.
- 84 — The Svoboda factory building, 1843.
- 85 — The bell tower of Skorbyashensky Monastery, XIX century.
- 86 — The Research Institute of Engineering Manufacture, 1937 , 1941.
- 87 — The North Riverside Station by A. I. Rukhlyadev, 1932-1937.
- 88 — Mikhalkovo, the estate of Duke P. I. Panin, late XVIII century, planned by V. I. Bazhenov.
- 89 — Znamenie Church in the Khovrino estate (Grachevka), 1868-1870.
- 90 — The house of the director of the Wool Fabric Parthership V. I. Iokish planned by D. P. Sukhov, the early XX century.
- 91 — The Kosmodemyanskoe estate (Belye Stolby), of the Zotovs–Gorikhvostov–Patrikeevs, the first half of the XVIII – XX centuries .
- 92 — The painting of the plafond of the Institute of Civil Aviaton residential hall lobby by I. V. Nikolayev, 1980.
- 93 — Our Lady Znamenie Church in Aksinyino, 1883-1884, works over A. G. Weidenbaum's project, XX century.
- 94 — Boris and Gleb Church, XIX century.
- 95 — St. Sergius of Radonezh Church in Businovo, engineering by V. O. Gruzdin and A. F. Yaroshevsky, 1857-1860.
- 96 — The Erevan cinema.
- 97 — Cultural center Voskhod (Former church of the VII century).
- 98 — The Nativity Church in Vladykino, 1859.
- 99 — The Altufievo estate, XVIII – XIX centuries.
- 100 — Larin town.
- 101 — The Mars cinema.
- 102 — The main building of the Central Research Institute of Stomatology.
- 103 — The office building of the Central Research Institute of Stomatology .
- 104 — Complex of 2-storeyed buildings, 1950–1955 rr.
- 105 — Estate, XIX century.
- 106 — I. G. Kozhevnikov's Wool Fabric, 1819-1822; T. G. Prostakov, late XIX- early XX centuries; 1960-1970s
- 107 — The Riga cinema.
- 108 — Water tower of servicing depot Moscow – Savelovskaya – Butyrskaya.
- 109 — Stalinesque post-war low-rise buildings.
- 110 — Stalinesque post-war low-rise buildings.
- 111 — Accomodation unit with a fountain and an electrical substation by Y. G. Lichtenberg, 1947.
- 112 — Grain elevator.
- 113 — The 17th Party Congress bread-baking plant №9.
- 114 — The building where in july 1941 the divisions of citizens in arms were formed.
- 115 — The building of Riga (Windava) Station by Y. F. Dideriks, S. A. Brzhosovsky, 1897-1901.
- 116 — The ensemble of Miusa Cemiterly by A. F. Elkinsky, late XVIII – early XIX centuries.
- 117 — The Boretz (former Gustav List) plant, est. 1870. Industrial buildings, offices.
- 118 — The building of Moscow Arts and Crafts School by Heine, 1950s.
- 119 — The garage of the Intourist by K. S. Melnikov, 1934.
- 120 — Our Lady Unexpected Joy Church in Maryina Roscha (with its interiors), 1903-1904, 1909 by P. F. Krotov, I. M. Zvinilev.
- 121 — Water tower.
- 122 — Wooden house and backyard building.
- 123 — Preserved front of a XIX century building.
- 124 — 2-storeyed 1950s building.
- 125 — The Financial Academy of the Russian Federation Government, the second half of the 1940s.
- 126 — The ensemble of the Pyatnizkoe Cemiterly, the XIX century. The church and the wing by G. Grigoryev.

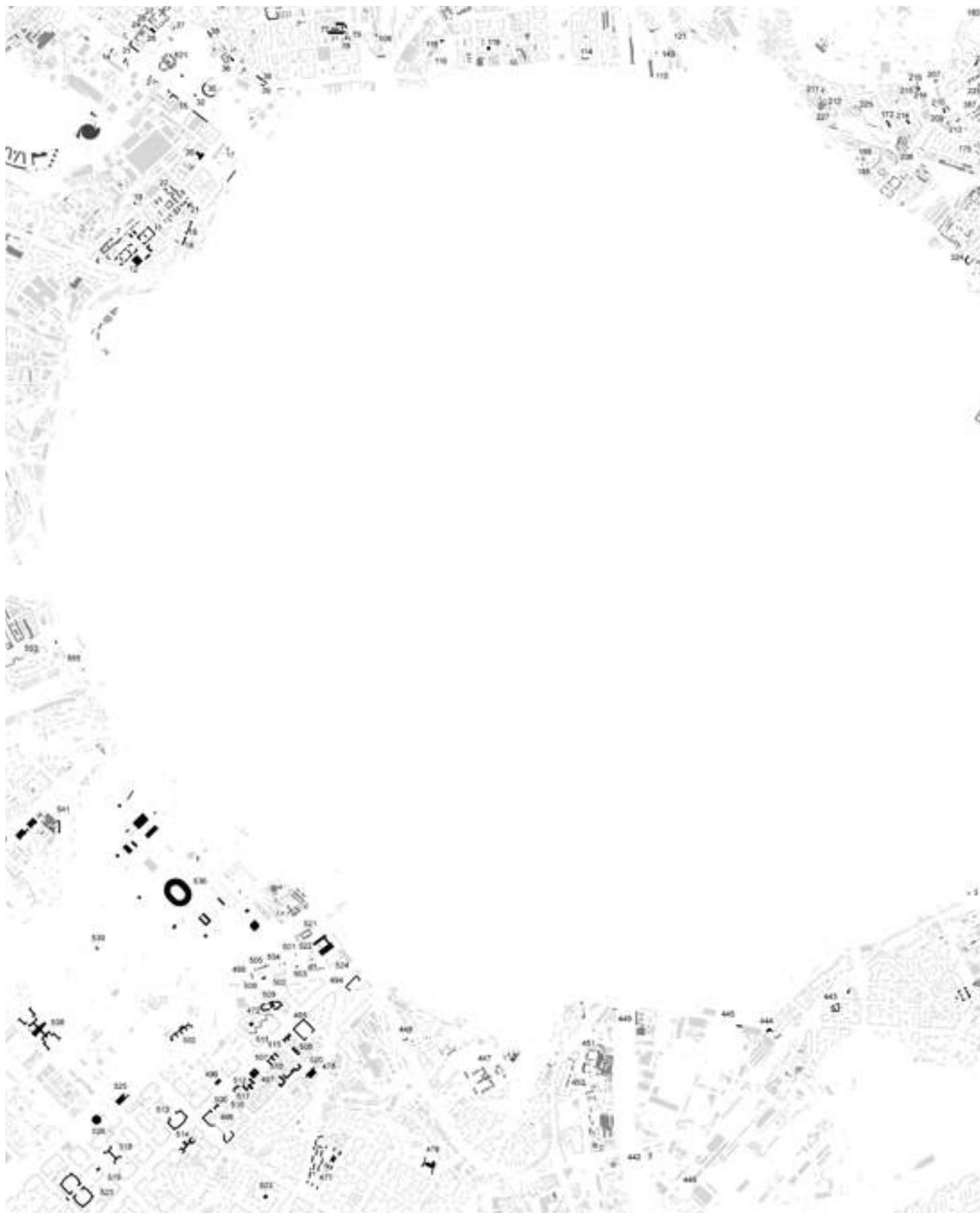


- 127 — House near the aqueduct over Yauza river.
- 128 — The building where in July 1941 the divisions of citizens in arms of the Rostokino district were formed.
- 129 — The painting of lift halls of the Cosmos hotel (eight pieces) by N. I. Andronov, 1979.
- 130 — Accomodation building by I. V. Zholtovsky, 1956.
- 131 — Accomodation building by V. S. Andreev, 1968 – 1969.
- 132 — Former Cotton Wool Fabric complex of club and residential hall by M. Y. Guinzburg, 1928.
- 133 — «Water Instrument» Plant, 1928. Alexeevskaya water pump station.
- 134 — Br. Peter, Alexey and Vassily Bakhrushins Orphanage, late XIX century. 135 — Здание, кон. XIX century
- 136 — Accomodation building, XIX century.
- 137 — Aqueduct over Yauza river, 1779–1785 , engineered by F. B. Bauer and Herard.
- 138 — Tikhvinskaya Church, 1676–1682.
- 139 — Memorial to the Space Conquerors by M. O. Barsch, A. N. Koltchin, 1964 г.
- 140 — VDNKh. All-Union National Economy Achievements Exhibition Complex.
- 141 — Printing and Publishing Work by M. L. Silbergleit, engineering by A. I. Abramovitch, S. B. Koganovitch, 1936.
- 142 — The Worker and Kolkhoz Woman, sculpture by V. I. Mukhina, architect B. I. Iofan, stainless chromium-nickel steel, 1938.
- 143 — The hall of the «Kolkhoz Culture Center» in the All-Russian Exhibition Center (VDNKh) by L. N. Avdotin, Y. P. Korneev, V. I. Koparin, 1954.
- 144 — The complex of the Ostankino television broadcasting center.
- 145 — Printing and Publishing Work by M. L. Silbergleit, engineering by A. I. Abramovitch, S. B. Koganovitch, 1936.
- 146 — Ostankino estate, late XVIII century.
- 147 — The memorial house where Chief Designer of Spaceships S. P. Korolev lived from 1959 to 1966. Museum.
- 148 — The Main Botanical Garden Of the Academy of Sciences of the RF.
- 149 — The I. G. Kozhevnikov's Wool Fabric by T. G. Protakov, 1819-1822; late XIX - early XX centuries; 1960-1970s.
- 150 — Former Central Railway Hospital, 1911-1914.
- 151 — A house over former Central Railway Hospital at the Yauza Station. Early XX century.
- 152 — Rostokino Ростокинская Worsted-Good Factory, late XIX century.
- 153 — Rostokino tramway depot, 1933.
- 154 — The hall of the Rostokino terminal stations, late XIX century.
- 155 — Log switchbox house with garden, early XX century.
- 156 — Several houses in Rostokino, the Mossovet town, 1930-1950s.
- 157 — The building of Komintern by I. A. Golossov, second half of the 1930s.
- 158 — The church of Leonovo village, 1719-1722. The bell tower, 1770 -1776.
- 159 — 4-storeyed 3-porch brick residential house, 1960.
- 160 — The building of The All-Russian State institute of Cinematography, late 1930s., 1950s. The Training Center of National Cinema, XX century.
- 161 — The buildings of the center of Babushkin City, later 1930 - early 1950s.
- 162 — The Intercession of the Holy Virgin Church, XVI–XVII centuries.
- 163 — Former school building, early XX century.
- 164 — Building, 1920–1925.
- 165 — Building, 1900–1920.
- 166 — St. Sergius of Radonezh Church by F. V. Rybinky, 1893-1894.
- 167 — The Arctic cinema, early 1960s.
- 168 — The water tower of the Losinoostrovskaya Station.
- 169 — Accomodation unit, early XIX century.
- 170 — St. martyrs Adrian and Natalia Church in Babushkino city near the Losinoostrovskaya Station by V. D. Glazov, S. M. Ilyinsky, 1914-1917.
- 171 — The Camomile — the main classroom building of MSUCE by Mosproject-1, V. V. Stepanov atelier, 1960s.
- 172 — Kindergarten of the Moscow Wallpaper Factory by M. S. Lamova, A. I. Zaytsev, 1952.
- 173 — Wooden house, 1902.
- 174 — Country palace of Elizabeth I, XVIII — XIX centuries.
- 175 — M. A. Strakhov's wooden house by L. I. Lasovsky, 1903–1906. The fence with gates in Gastello street.
- 176 — The house of P. I. Chirikov – S. I. Alexeev by V. A. Popov, 1800-1910; late XIX century, 1901.
- 177 — Accomodation unit by M. I. Motilyov, 1927 .
- 178 — The ensemble of Sokolniki work-house department and Labour Diligence House, late XIX - XX centuries.
- 180 — Trinity family chapel in Alexander department of the Ermakov poorhouse, 1875, by P. I. Ivanov; 1899 by P. M. Samarin.
- 181 — The ensemble of the Coronation Refuge and I. D. Baev Almshouse, 1900s.
- 182 — Department store by B. M. Velikovsky, 1926 г.
- 183 — The Savior Transfiguration Church in Bogorodskoe by N. A. Ipatyev, F. P. Skomoroshenko, 1877(?)–1800; 1890.
- 184 — The main building of the Moscow Partnership of Rubber Manufacture.
- 185 — The Alexeevsky Convent in Krasnoye village, XIX centuries, 1930s.
- 186 — All Saint Church, 1887–1891.
- 187 — Sokolniki hospital by A. I. Roop, 1899–1903 .
- 188 — The estate of P. V. Zigel in Sokolniki by S. Y. Isenkovitch, 1915–1917; 1930s.
- 189 — Dacha of M. P. Khlebnikova, late XIX century.
- 190 — The building where the 20th Budapest Guardian Diviion was formed in July 1941.
- 191 — Central Sokolniki repair sateliers, early XX century.
- 192 — Accomodation unit by A. Potapov, T.

- Larionov, 1930 r.
- 193 — Accomodation unit by A. Potapov, T. Larionov.
- 194 — Matroskaya Tishina Residential complex. The ensemble by M. I. Motylyov, 1927.
- 195 — Accomodation unit by G. Wulfson, 1929.
- 196 — The Annunciation of the Holy Virgin Church over the engineer batalion, 1906.
- 197 — Preobrazhenskaya hospital for the insane (Moscow Tollhaus), 1804–1809, by I.A. Selekhov, 1912–1914.
- 198 — Complex of buildings and facilities of the Rostokino Station, by A.N. Pomerantsev, engineered by S. Kareysha, A.D. Proskuryakov, 1905–1906. The building of the railway station for passengers.
- 199 — Here “Katusha” divisions were formed during World War II 1941–1945 .
- 200 — Orphanage for Alms-folk Minors named after F.P. Gaaz, by A.F. Meysner, 1913.
- 201 — Hospital (former datcha), XIX — XX centuries.
- 202 — 7th Central Military Clinical Aviation Hospital, 1920–1930s.
- 203 — M.A. Sirotinina’s Datcha, the end of the XIX — the beginning of XX centuries.
- 204 — The wing of the “Pokrovskoye” estate, XVIII century.
- 205 — Children’s Hospital named after St. Vladimir, 1876, 1880s by R.A.Gedike, N.A. Tyutyunov.
- 206 — Car Shed named after Rusakov.
- 207 — Tivoli Theatre, late XIX – early XX century, 1926, 1970s. Lenin made a speech there in 1920.
- 208 — The Office of “Honey-brewed Partnership of Kalinkin”, made of wood, with wood carving, with rock bed, 1885–1891.
- 209 — Private Police House in Sokolniki by M. K. Geppener, 1880s.
- 210 — Ground Entrance Hall of “Sokolniki” Station.
- 211 — Club in “Burevestnik” Factory, by K.S. Melnikov, 1927–1929.
- 212 — I. L. Ding’s Town House, by A.M. Kalmykov, 1903. The main house.
- 213 — Colledge in Sokolniki, 1902.
- 214 — Voskreseniya Slovushego Church near Sokolnicheskaya Zastava, by A.P. Tolstych, 1909, with the clergy of a parish’s house.
- 215 — Household building, 1910.
- 216 — The Clergy of a Parish’s House besides Voskreseniya Slovushego Church near Sokolnicheskaya Zastava, by L.I. Lazovski, P.A. Tolstych, 1911.
- 217 — Poor-house of Boevoy Brothers, 1890s.
- 218 — The bulding, early XX century.
- 219 — Two-storeyed building (additional storey), XVIII–XIX centuries.
- 220 — Yekaterininskaya (Matrosskaya) Poor-house, XVIII — XIX centuries.
- 221 — Culture Center named after Rusakov, by K.S. Melnikov, 1927–1929.
- 222 — Hospital for chronic patients named after Bachrushin brothers, 1884–1887, by B.V. Freydenberg, 1890–1892; by A.I. Ivanov-Shitz, V.V. Lebedev, 1908.
- 223 — Accomodation unit, by A. Volkov, 1927.
- 224 — I.Ya. Testov’s datcha, late XIX — early XX centuries: the main house, the wing, the walkway.
- 225 — Ensemble of Wooden houses. Early XX century.
- 226 — Building of Tubercular Institute, by R.Ya. Khiger, 1930–1932.
- 227 — Acommodation units, 1910–1930s.
- 228 — Ensemble of buildings in Sokolniki Park, late XIX – beginning of XX centuries.
- 229 — Estate, 1915–1917, S. Ya. Ayzikovitch, 1930s.
- 230 — Block, 1939.
- 231 — Brick-built 3-storeyed House, 1861, with two additional storeys and a front of building in late Stalinesque empire style.
- 232 — Acommodation unit, 1945–1955.
- 233 — G.K. Gorbunov town estate, by O.Piotrovsky, Yu. F. Diterikhs, 1905–1911. There was G.K. Gorbunov’s printing-office in 1904–1917.
- 234 — Vvedensky People’s House — Electric-bulb Club, by I.A. Ivanov-Shitz, B.V.Efimovitch, 1904, 1940s.
- 235 — Acommodation unit, 1900.
- 236 — School, 1920–1930s.
- 237 — Merchant Bavykin’s house, 1840s, the 2nd half of XX century.
- 238 — Merchant Chlebnikov’s house, XIX century (rebut in the 2nd half of the XX century).
- 239 — Acommodation unit with the Hall of Orion Cinema by K.A.Dugin, 1913 r (rebut in the 2nd half of the XX century).
- 240 — Acommodation unit, the 2nd half of the XX century (basically the wing of merchant Bavykin’s estate).
- 241 — Ensemble of monuments of Preobrazhenskaya Old Believers Community, XIX — early XXth century, by L.N. Kekushev.
- 242 — Preobrazhensky Town, by I.S. Nikolayev, M.M. Rusanova, 1928–1929s.
- 243 — Cathedral, 1811.
- 244 — Chamber, by F.K. Sokolov, 1805, 1st quarter of the XIXth — the beginning of the XXth century.
- 245 — Observation Ward by M.F. Kazakov.
- 246 — The First women’s ward by M.F. Kazakov.
- 247 — Gate-house, XIX century.
- 248 — Ensemble of Nikolsky Edinoverchesky Monastery, XVIII–XIX centuries.
- 249 — The main house of Nosov’s town estate, 1870s, by P.Schyogolev, 1883, by A.Ageenko, I.V. Zholtovsky feat. L.N. Kekushev.
- 250 — Acommodation unit, XIX century.
- 251 — Nosov’s Town estate, XIX century.
- 252 — The building of merchant Kovylin’s Wool factory, 1790s (basically palaces of the 1st half of the XVIII century).
- 253 — Acommodation unit, 1912–1917.
- 254 — Acommodation unit, office block, 1911–1912 by A.N. Markov, 1990s.
- 255 — Office building of merchant Tikhomirov’s factory, the middle of XIX century.
- 256 — Acommodation unit (rebuilt), the end of the XVIII century, 1860.



- 257 — V.S. Lerkh's Commercial apartment building.
- 258 — Accommodation unit, the end of XIX century.
- 259 — The Prophet Elijah Church, 1690.
- 260 — The house of the clergy of a parish near Prophet Elijah Church, XIX century.
- 261 — Out-of-town Residence of Metropolitans of Moscow (Mitropolichya datcha).
- 262 — Accommodation unit, 1899–1900s, by V.N.Yelagin, 2000s.
- 263 — Engineering building of L.F. Tide confectionery factory, 1894–1907s, 1940–1950s, 2000s.
- 264 — Office block, 1900–1920s.
- 265 — Building, 1930.
- 266 — Ensemble of Partnership “Provodnik” Factory, by G.P. Evlanov, 1916.
- 267 — Nosov's Manor house in Vvedenskaya Square, by L.N. Kekushev, 1903.
- 268 — Mussi's Silk-mill Partnership, the end of XIX — the beginning of XX century, engineer and architect — V.Zalessky, engineer I.I. Kondakov (Silk Factory named after P.P. Scherbakov).
- 269 — The object of historical environment.
- 270 — Accommodation unit, 1st part of the XIX century.
- 271 — Preobrazhenskaya hospital for the insane (Kotovskaya part), 1904, by I.P. Maskov, 1912–1914.
- 272, 273 — Engineering building of V.F.Tidie's confectionery factory, 1886, by V.F. Zhigardlovitch, 1907, 1940–1950s, 2000s.
- 274 — Electrical factory MELZ.
- 275 — The Yantar Cinema.
- 276 — Cherkizovskiye Ponds.
- 277 — St. Zosima and Savvaty Church in Golyanovo, V.F. Baranov — engineer of architecture XIX century.
- 278 — Pervomayskiy department store, 1967–1969.
- 279 — Trudovye Reservy sports complex.
- 280 — Sophia Cinema, built by the project of M.N. Moshinsky.
- 281 — Trudovye Reservy sports complex.
- 282 — Lilac Garden.
- 283 — Izmailovo. 1st, 2nd blocks of Izmailovo. The complex of 3-storeyed and 4-storeyed buildings behind the Electric engine house.
- 284 — Stalinesque low-rise accommodation units built after World War II. The house, built for workers of Electric-bulb factory (1951).
- 285 — Datcha-workshop, in which sculptor S.D. Merkurlov lived and worked in 1920–1952 (the sight-seeing).
- 286 — Club, 1952.
- 287 — Rozhdestvenskaya Church, 1676. Bell Tower, 1st half of XVIII century.
- 288 — Izmailovskoye depot, 1932.
- 289 — Izmailovsky Park Metro Station, 1944.
- 290 — Palaces, 1681. Fountaine, XIX century.
- 291 — Creative workshops of Artists Union, 1950s.
- 292 — Complex of Equestrian sport school in Izmailovo.
- 293 — Ensemble of accommodation units, the beginning of 1950s.
- 294 — Izmailovskaya (Nikolayevskaya) Military Poor-house, by K.A. Ton, 1835.
- 295 — Ensemble of accommodation units with boulevard.
- 296 — Ensemble of accommodation units with boulevard.
- 297 — Hotel facilities “Izmailovo”, by D.I. Burdin, V.A. Klimov, E.V. Putyatin, Yu. K. Matyasov, A.S. Soldatov, V.M. Muzychenko, 1974–1980.
- 298 — Stalinesque 5 storeyed house, 1953.
- 299 — Izmaylovsky state farm of decorative gardening.
- 300 — Building of the beginning of XX century.
- 301 — Semenovskiy house in the village, XVIII–XIX centuries.
- 302 — The Resurrection of Christ Church on Former Semenovskoye Cemetery, 1855..
- 303 — House, XIX century.
- 304 — Polyclinic, late 1920s — early 1930s.
- 305 — The house, where F.A. Tsander, one of the founders of the Soviet rocket and missile engineering, lived and worked.
- 306 — Complex of buildings and constructions of the “Lefortovo” Station, by A.N. Pomerantsev, engineer — S. Kareysha, A.D. Proskuryakov, 1903–1908.
- 307 — Ground entrance into “Elektrozavodskaya” metro station.
- 308 — “Perovskiy” Department store, 1960–1970s.
- 309 — The “Rodina” Cinema, 1937–1938, by V.P. Kalmykov, 1973.
- 310 — Accommodation unit, 1790–1800s.
- 311 — Culture Centre named after V.I. Lenin of Moscow-Ryazan' Railway, by G.P. Goltz, 1928–1930.
- 312 — Former annular locomotive shed with a turning table, 1909.
- 313 — A kitchen-factory, 1929–1930, by B. Vilensky.
- 314 — Bonaker's Factory and Pelke's Factory, the beginning of the XX century.
- 315 — Palace for Workers named after V.M. Zagorsky, the beginning of the XIX century. V.I. Lenin made a speech there on the 1st of May in 1920.
- 316 — Bonaker's Factory and Pelke's Factory, the beginning of the XX century.
- 317 — Merchants' Ivanovs' Weaving-mill of Company “Rikhard Simon and Co.”, the middle of the XIX century, the end of the XIX century, 1912–1914.
- 318 — Industrial structure in Neo-Russian style
- 319 — Automotive Equipment Maintenance Plant.
- 320 — The building of the Main Computer Center of Central Statistical Administration of the USSR, by L. Pavlov.
- 321 — Test Room №6.
- 322 — First Military Hospital. Founded by Peter the Great, the construction began in 1706. The main building enlarged and completed in 1797–1802, by I.V. Yegotov. Addition from the



- side of drill field, by S. Melnikov, 1820.
- 323 — Saint Nicholas Church in Pokrovskoye, 2nd half of the XVIII — XIX centuries, by P.P. Zykov, A.A. Nazarov.
- 324 — Accommodation unit, 1790–1800s.
- 325 — Pokrovskaya meshchanskaya poor-house ensemble, the XIX century.
- 326 — Pokrov Church in Rubtsov, 1619–1627.
- 327 — Accommodation unit, the XIX century.
- 328 — Ensemble «Budenovsky poselok» (the fragment of planning and development of Moscow in 1920–1930s), 1926–1927, 1929–1930, 1970s.
- 329 — Accommodation units, 1929–1930s, 1970s.
- 330 — Merchant Shurov’s House, 1798, 1891.
- 331 — The Great Martyr Irina Church (Trinity Zhivonachalnaya Church) in Pokrovskoye, 1790–1800s, 1820–1830s, 1888–1891, the end of 1930s, by P.P. Zykov.
- 332 — The Moscow Institute of Construction residential hall complex, 1933.
- 333 — Founded by Peter the Great, the construction began in 1706. The main building enlarged and completed in 1797–1802, by I.V. Yegotov.
- 334 — Shakhovskaya’s House, by O.I. Bove, the early XIX century. The interiors are with the painting on the ceiling lights, the beginning of the XIX century.
- 335 — Voskreseniya Slovushego Church, by I.I. Pozdeev, 1902–1903.
- 336 — Hall of residence for students, 1920–1930s.
- 337 — Hall of residence for students, 1920–1930s.
- 338 — Accommodation unit, by I.P. Mashkov, 1900.
- 339 — Accommodation unit, the XIX century.
- 340 — Warehouse and garage complex of Snabress, by V.N. Nikolsky, 1934.
- 341 — Administrative and office building of pan-Russia Institute for Energy, by L. N. Meylman, V.Ya. Movchan, G.Ya. Movchan, 1927–1929.
- 342 — Barracks of Lefortovo, administration buildings of Ekaterininsky Palace, 1831.
- 344 — Accommodation unit, by N. Molokov, 1930.
- 345 — Garage for Gosplan, by K.S. Melnikov, 1936.
- 346 — Complex of Buildings and constructions of the “Andronovka” Station, 1903 – 1908, by A.N. Pomerantsev, engineers – A.D. Proskuryakov, S. Kareysha. The building for passengers.
- 347 — Accommodation unit, 1903–1908, by A. N. Pomerantsev.
- 348 — Saints Peter and Paul Church in Soldatskaya Sloboda, the end of the XVII — the beginning of the XVIII centuries.
- 349 — Hall of residence for students of MVTU (Moscow Higher Technical School) in former Annengof grove, 1930.
- 350 — Ensemble of accommodation units, 1930–1950s.
- 351 — Vsekhsvyatsky Convent, by N.A. Ipatyev, the XIX century.
- 352 — Accommodation units, 1950–1960s.
- 353 — Hall of residence for students in Anengof grove, 1930–1950s.
- 354 — Ensemble of accommodation units, 1930–1950s.
- 355 — Post-war Stalinesque low-rise. Fragments of German town in Perovo, 1945–1946.
- 356 — Accommodation unit, 1948.
- 357 — Building of Dental Clinic.
- 358 — Accommodation unit, mid.-1950s.
- 359 — Accommodation unit, mid.-1950s.
- 360 — Ensemble of accommodation units, mid.-1950s.
- 361 — “Perovo” Estate.
- 362 — Accommodation unit, mid.-1950s.
- 363 — Culture Center of Moscow Locomotive repair plant, 1927–1928.
- 364 — Club of “Kompessor” Plant, 1920.
- 365 — Bathing establishment, 1920.
- 366 — The “Slava” Cinema, 1952–1957, and standard double-hall cinema, by I. V. Zholtovsky, feat. V. Voskresensky and N. Sukoyan.
- 367 — The “Vladivostok” Cinema.
- 368 — The Na ve Art Museum – Western Art Nouveau, the early XX century.
- 369 — The Terletskii’s Estate, late XVIII – XIX centuries.
- 370 — Actor and director A.D. Dikii’s house-datcha, where he lived in 1916–1955s, 1890, by Ulyaninskii.
- 371 — Nikolskaya Edinovercheskaya Church, 2nd half of the XVIII century, 1863.
- 372 — Ensemble of Rogozhskaya Old Believers’ Community, the XIX century.
- 373 — Znameniya Church, 1784, the XIX century.
- 374 — The State Museum of Ceramics and “Kuskovo” Estate, the XVIII century.
- 375 — Building of the club, 1952.
- 376 — Accommodation unit with the hairdresser’s, manufactured goods shop and grocery store, late 1930s, 1950–1952.
- 377 — Accommodation unit, 1950–1952 rr.
- 378 — Accommodation unit with laundry, 1950–1952.
- 379 — Accommodation unit with the chemist’s, 1950–1952.
- 380 — Accommodation unit, 1952–1955.
- 381 — Circular railway Outbuilding (36 km) besides crossing with Kurskaya Road, 1900–1910.
- 382 — Accommodation unit, 1950–1952.
- 383 — Accommodation unit, 1950–1952.
- 384 — Accommodation unit, 1950–1952.
- 385 — Accommodation unit with shops, polyclinic and nursery school, 1953–1955.
- 386 — Accommodation unit, 1953–1955.
- 387 — School, 1950–1954.
- 388 — Boiler-house, 1953–1955.
- 389 — Accommodation unit with a shop, library, dress-making and tailoring establishment and day-nursery, 1953–1955.
- 390 — Accommodation unit, 1950–1952.
- 391 — Boiler-house, 1950–1952.
- 392 — Accommodation unit, 1950–1954.
- 393 — Accommodation unit, 1950–1952.
- 394 — Accommodation unit, 1950–1952.



- 395 — Nursery school for 125 children, 1950–1952.
- 396 — Accommodation unit, 1952–1954.
- 397 — Accommodation unit, 1947–1953.
- 398 — Administrative building, 1947–1953.
- 399 — Building of Veterinary Academy named after K.I. Skryabin, 1956. Here scientists S.N. Vyshel'skii, M.F. Ivanov, M. P. Tushnov worked in 1950s.
- 400 — The complex of the K. I. Skryabin Veterinary Academy, 1950s.
- 401 — The complex of post-war low-rise residential buildings in the Tekstilchiki district, 1947–1953.
- 402 — The ensemble of the Kuzminki estate in the Moscow Region, late XVIII — early XX centuries.
- 403 — Residential unit, 1950–1954.
- 404 — The Durasovys estate, XVIII — XIX centuries.
- 405 — The Liublino Cemetery.
- 406 — The ensemble of the Liublino estate in the Moscow Region by I. V. Yegotov, late XVIII — early XIX century.
- 407,408 — The ensemble of residential buildings, 1950s.
- 409 — Accommodation unit, 1952–1954.
- 410 — The complex of buildings and facilities of the Ugreshskaya Station by A. N. Pomerantsev, engineered by S. Kareysha, P. Rashevsky, A. D. Proskuryakov. The receiving room. 1903–1908.
- 411 — Accommodation unit, 1950s.
- 412 — The complex of buildings of the Nikolo-Perervinsky Monastery, XVIII — XIX centuries.
- 413 — Pererva waterworks facility.
- 414 — The forbidden town of Pererva waterworks facility.
- 415 — Low-rise town of Kuryanovo.
- 416 — Industrial complex, late XIX — early XX century Four buildings, a water tower.
- 417 — The Ecran cinema.
- 418 — The Nativity of the Holy Virgin Church in Kapotnya, 1860–1870s.
- 419 — Social cottage settlement for families with five or more children.
- 420 — The Maryino development ensemble around the Maryino ponds.
- 421 — OAO Gazpromneft — Moscow Oil Refinery Plant.
- 422 — The State Artistic, Historical, Cultural and Natural Landscape Reserve Kolomenskoye.
- 423 — Dyakovo.
- 424 — Accommodation unit, 1961.
- 425 — Richter Children's Art School by G. S. Ter-Saakov, N. G. Anisiforov.
- 426 — Accommodation unit, 1960.
- 427 — Accommodation unit, 1959.
- 428 — Accommodation unit, 1961.
- 429 — Accommodation unit, 1960.
- 430 — MEPhI, the complex of buildings, 1950–1962 .
- 431 — The Nikolskaya Church, 1693 .
- 432 — The Boriovsky ponds cascade.
- 433 — The ensemble of the Tzaritsyno estate, XVIII century.
- 434 — Tzaritsyno village, 1860.
- 435 — The Avangard cinema .
- 436 — Chemist's, A. Larin, E. Ass, 1973.
- 437 — The house of designer of small arms S. G. Simonov who lived and worked here in 1950–1986, 1950s.
- 438 — The Tzaritsyno- Dachnoe railway station of Moscow-Kursk road by V. K. Philippov, 1908 r.
- 439 — The Elbrus Cinema.
- 440 — Stalinesque 2-storeyed building.
- 441 — Leo Tolstoy Library №146 by Rosenfeld (funds opened in 1908).
- 442 — Kozhukhovskiy Bridge of the Moscow Railway Small Ring.
- 443 — The complex of residential buildings, late 1940.
- 444 — Sauna and Pool of the Rogozhskiy-Simonovskiy district by V. Panin, 1930.
- 445 — The office of the first Russian auto plant AMO (established 1916), 1918–1921.
- 446 — The ZIL auto plant.
- 447 — The gardens and the ensemble of the N. A. Alexeev hospital of insane by L.O. Vassiliyev, 1890 r.
- 448 — The complex of buildings of the Kanatchikovo Station by A. N. Pomerantsev, engineered by S. Kareysha, A. D. Proskuryakov, 1903–1908. The watch-house.
- 449 — Accommodation unit in the Danilovskaya Sloboda, the XIX century.
- 450 — Accommodation unit, 1890 .
- 451 — The Danilovskaya Manufacture industrial complex.
- 452 — Accommodation unit, 1950s.
- 453 — The Menshikovs estate, XVIII — XIX centuries.
- 454 — Residential cottages, 1940s.
- 455 — The Member of the Academy of Sciences Vischnevskiy Square.
- 456 — A fragment of the Chertanovo training aerodrome.
- 457 — The NICEVT Electronic Research Center, 1970.
- 458 — Boris and Gleb Church, 1694.
- 459 — The Prosorovsk-Beketovs «Ziuzino» estate.
- 460 — The Odessa cinema.
- 461 — The water tower of the Biryulevo-Tovarnoye Station, early XX century.
- 462 — The rests of the Biryulevo-Tovarnoye Station, early XX century.
- 463 — St. Nicholas Church in Biryulevo.
- 464 — Residential houses in shape of three flowers.
- 465 — The Zhiguly car service station by L. N. Pavlov, 1968.
- 466 — The relief paintings on the Zhiguly car service station café walls by I. I. Lavrova, I. V. Pchel'nikov, 1975.
- 467 — Auto service center by L. N. Pavlov, L. Gonchar, 1978 .
- 468 — The Yasenevo estate, the XVIII century.
- 469 — The Uzko estate of Streshnev-Golitsyns, XVII–XIX centuries.
- 470 — The Khanoy cinema.
- 471 — The Yasenevo estate, the XVIII century.
- 472 — Paleontology Museum by Y. P.



- Platonov, 1978 .
- 473 — The Novator culture center, 1952.
- 474 — The complex of buildings and facilities of the Kanatchikovo Station by A. N. Pomerantsev, engineered by S. Kareysha, A. D. Proskuryakov, 1903–1908. Accommodation unit.
- 475 — The Hydronauts, the stained-glass window in the hall of the Oceanology Research Institute of the USSR Academy of Science, by L. G. Polischuk, S. I. Scherbinina. Cast glass.
- 476 — Motor base of the Academy of Sciences, 1930s.
- 477 — The 9-th block of the New Cheremushki district by N. A. Osterman, S. Lyaschenko, G. Pavlov and others, 1956–1958.
- 478 — The new customer services center (The MSU trainee and postgraduate student house) by N. A. Osterman, A. V. Petrushkova, 1965–1971.
- 479 — The relief emblem on the frontispiece of the Central Economics and Mathematics Institute by V. K. Vassiltsev, E. A. Zharenova, 1975. Concrete, mosaic.
- 480 — The Tbilissi cinema.
- 481 — The Central Economics and Mathematics Institute planned by L. Pavlov, G. Yambovskaya, I. Yarov, 1975–1977.
- 482 — The Institute of Information of the USSR Academy of Sciences (INION), planned by Y. B. Belopolsky, 1978.
- 483 — The Konkovo-Sergievskaia estate, XVII–XIX centuries.
- 484 — The Institute of Management of the Academy of Sciences by D. A. Metanyev, E. I. Fomina, before 1974 r.
- 485 — Ponds (Kon'kovo).
- 486 — Building, 1947–1950.
- 487 — The Bogorodskoe (Voronino) estate.
- 488 — The Kazakhstan cinema (1971), now the Eldar cinema club
- 489 — The residential and administrative complex «Park Place» by Y. Belopolsky, N. Lutomsky, Y. Eroumer, 1989–1992.
- 490 — Childrens' clinical hospital.
- 491 — Vorontsov's estate, XVIII–XIX centuries.
- 492 — Healing of a man, mosaic front panel on the library of the 2nd Medical Science Institute (2nd MOLGMI) by Polischuk, L.G. Scherbin.
- 493 — The German Consulate and the Goethe - Institute, former embassy of GDR.
- 494 — Accommodation unit, 1961, the house of the Council of Ministers.
- 495 — Accommodation unit by E. N. Stamo, 1959 r, former direction of Russian Lotto.
- 496 — The Moskva department store 1959–1962 .
- 497 — Y. V. Samoylov Research Institute of fertilizers and insectofunghicides, 1939.
- 498 — Schubnikov Institute of Chrystallography of the Academy of Sciences.
- 499 — Dmitriev-Mamonov's estate.
- 500 — Accommodation unit. There lived geologist M. I. Agoshkov.
- 501 — The 40th Anniversary of the All-Union Pioneer Organization Palace of the Pioneers and Schoolboys by V. S. Egerev, V. S. Kubasov, F. A. Novikov, B. V. Palu, 1962.
- 502 — The statue of «Maltchish-Kibaltchish» by sculptor V. K. Frolov, architect V. S. Kubasov, 1972 r. Forged brass, granite.
- 503 — The Institute of Physical Problems of the USSR Academy of Science, 1934–1949 , 1950s., architects P. Nikolayev, B. M. Iofan, E. N. Stamo feat. G. A. Asseev.
- 504 — The explosion and combustion laboratory building of N. N. Semenov Institute of Chemical Physcics by P. I. Sidorov, 1949.
- 505 — Greenhouse, 1833. Palace, 1756–1761 . Architects S. I. Chevakin, I. Zherebtsov, D. I. Zhilyard.
- 506 — Accommodation unit for the members of N. N. Semenov Institute of Chemical Physcics by P. I. Sidorov, 1940.
- 507 — Park and fence of the Metallurgy Institute, 1946–1951.
- 508 — Object of historical urban environment.
- 509 — Square 1947–1950 , architects A. V. Schusev, I. V. Zholtovsky and others.
- 510 — The ensemble of buildings of the Metallurgy Institute by A. V. Schusev, A. V. Snigarev, N. M. Morozov, B. M. Tarelin, 1946–1951.
- 511 — The building of the All-Soviet Labour Organizations Council by A. Vlassov, 1936.
- 512 — P. I. Lebedev Physical Science Institute by A. V. Schusev, A. V. Snigarev, N. M. Morozov, B. M. Tarelin, 1946–1951.
- 513 — The house where in number 35 lived and worked Y. N. Rerich.
- 514 — The wall paintings in the hall of the I. M. Gubkin Institute of Oil and Gas Industry by O. P. Filatchev, 1976.
- 515 — N. D. Zelinsky Institute of Organic Chemistry, the main building by A. V. Schusev, A. V. Snigarev, N. M. Morozov, B. M. Tarelin, 1946–1951.
- 516 — The fence, 1946–1951.
- 517 — The Institute of Genetics of the USSR Academy of Sciences (Y. V. Samoylov Research Institute of fertilizers and insectofunghicides) by A. V. Schusev, 1936–1939.
- 518 — Accommodation unit for the MSU professors by Y. B. Belopolsky, E. N. Stamo, engineering by G. N. Lvov, 1953.
- 519 — Buiding, 1963.
- 520 — The ensemble of the Mining Institute of the Academy of Sciences by I. V. Zholtovsky in cooperation with P. N. Sheverdyaev, Sh. A. Airapetov, 1951 , 1956.
- 521 — The building of Poor-house, early XIX century.
- 522 — The ensemble of buildings of the Chemical Phisycs Institute of the USSR Academy of Sciences by B. S. Mesentsev, I. V. Zholtovsky , S. N. Grinev, P. I. Domoratsky, A. M. Gorbachev, 1947–1950; 1960s.
- 523 — The ensemble of residential buildings by D. I. Burdin, 1952–1954.
- 524 — The presidium of RAS by A. A. Batyрева, L. A. Barsch, from the late 1960s to the early 1990s.
- 525 — Chidrens' musical theatre by A. Velikanov, 1979.
- 526 — Big Moscow State Circus by



- Y. B. Belopolsky, 1969.
- 527 — Hospitable Russia, the mosaic panel by B. A. Talberg in the lobby of the Olympysky concert hall of the Olympic village, 1980. Smalt.
- 528 — Culture, art, theatre, the mosaic panel in the lobby of the Big Concert Hall by V. K. Zamkov, 1980. 529 — Michael Archangel Church, 1693.
- 530 — Olympic village.
- 531 — Accomodation unit, 1950s.
- 532 — House with memorial tablet to I. S. Sokolov-Mikitov, 1950.
- 533 — Olympic post office.
- 534 — The ensemble of five-storeyed buidings with a pond.
- 535 — 50th Anniversary of October Park.
- 536 — The big sports arena by A. V. Vlassov, I. E. Rozhin, A. V. Khryakov, N. N. Ullas, engineered by V. N. Nassonov, N. M. Reznikov, V. P. Polikarpov, 1956.
- 537 — Khamovniki.
- 538 — Complex of buildings of Moscow Lomonosov State University, 1949–1953 by L.V. Rudnev, S.E. Chernyshev, P.V. Abrosimov.
- 539 — Trinity Church (Troitsa Church) in Vorobyov, 1811.
- 540 — Town estate, XVIII–XIX centuries.
- 541 — Complex of buildings and constructions of Mosfilm studio, 1920–1950s.
- 542 — Troitskaya church, 1644.
- 543 — Complex of buildings and constructions of Mosfilm studio, 1920–1950s.
- 546 — The house, where Lenin stayed.
- 547 — Nikolskaya church, 1706.
- 547 — Prince Troekurov’s village estate on Setun, XVIII–XIX centuries.
- 548 — Two Western wings, the XIX century
- 549 — Round accomodation unit №2.
- 550 — The “Planeta” Cinema.
- 551 — Accomodation unit, 1950s.
- 552 — The Archistratigus Michael’s Chapel Besides Kutuzovskaya Izba (in 1910–1920s – The Museum of Patriotic War 1812), 1910–1912.
- 553 — Kitchen-factory, 1920s.
- 554 — The Museum-panorama “Borodino Battle”, 1961–1962, by Korabelnikov, A.A.
- Kuzmin, S.I. Kuchanov, engineer-constructor Yu. Ye. Avrutin.
- 555 — Complex of Buildings and Contructions of the “Kutuzovo” Station, 1903–1908, by A.N. Pomerantsev, engineers S. Kareysha, L.D. Proskuryakov.
- 556 — Victory Square (Pl. Pobedy).
- 557 — Victory Park (Park Pobedy).
- 558 — The “Kuntsevo-1” Station, 1912.
- 559 — Znameniya Church in Kuntsevo, 1990s, by S.U. Solovyev.
- 560 — Addition to the Church, 1930s.
- 561 — Datcha at Kuntsevo, early XX century.
- 562 — Foundations of the wooden St. Seraphim Sarovskii Church, by V.F. Zhigardlovich, 1907–1909.
- 563 — Complex of Seraphimovskaya Convent, early XX century.
- 564 — Bell-chamber with a gate-house and agate pier, by V.F. Zhigardlovitch, 1915–1928.
- 565 — Brandys’s grave (1923–1988), twice Hero of the Soviet Union.
- 566 — Spas na Setuni Church, 1676.
- 567 — Two-storeyed house. Park (oak grove). Setun Estate.
- 568 — Buildings of Weaving-mill named after Petr Alexeev, 1838.
- 569 — Datcha of the baker Dmitry Fillipov, by M. Arsenyev, 1890.
- 570 — Buildings of 1930s and “Zavety Ilyicha” club, 1928.
- 571 — Wooden houses, late 1920s.
- 572 — The ensemble of accommodation units in the 11th block in “Kuntsevo” district, 1950s.
- 573 — The Kuntsevo Cinema.
- 574 — The Fili Railway Station.
- 575 — Country Estate, the XVIII century.
- 576 — Pokrova in Fili Church, 1693–1694.
- 577 — Factory-kitchen in Fili, 1931.
- 578 — Club named after S.P. Gorbunov in Fili, by Ya.A. Kornfeld, 1931–1938.
- 579 — Church in Krylatskoye Village, the XVIII century.
- 580 — The rowing canal Platform, 1973, by V.I. Kuzmin, V.D. Kolesnik.
- 581 — Olympic cycle race track, by N. Voronova, A. Oslepnikov, 1980.
- 582 — Trinity Church (Troitsa Church), 1693.
- 583 — The ensemble of Khoroshevskaya Konyushennaya sloboda stable yard, by E. Klucharyov, the XVIII century, XIX century
- 584 — Household building.
- 585 — Buildings and constructions of hussar regiment barracks, 1930–1950s, by E.D. Tyurin, the beginning of the 1920s.
- 586 — The Picturesque Bridge.
- 587 — The ensemble of stable yard in Khoroshevskaya Konyushennaya sloboda, the XVIII century.
- 588 — Hydroelectric complex, 1932–1938, by A.M. Rukhlyadev.
- 589 — The Patriot Cinema.
- 590 — Terekhovo village.
- 591 — Former quay. Serebryany Bor.
- 592 — Accomodation and administrative units, by A.V. Shchusev, 1950.
- 593 — House, 1953.
- 594 — Accomodation units at Oktyabrskoye pole, by D.N. Chechulin, M.G. Kupovskii, late 1940s.
- 595 — The ensemble of “Science campus of laboratory №2, Academy of Sciences of the USSR”, by I.V. Zhoitovsky, L.B. Karlik, 1945–1949.
- 596 — Accomodation units, 1957.
- 597 — Our Lady’s Icon “Skoroposlushnitsa” Church in Khodynskoye Pole, 1901–1902.
- 598 — Accomodation units in Oktyabrskoye Pole, late 1940s, by D.N. Chechulin, M.G. Kupovsky.
- 599 — Accomodation unit, 1937. The first cooperative house in Moscow (Joint Staff of Tushino Airport Pilots).
- 600 — The Karzinkins’ Estate, the 2nd half of the XIX — early XX centuries.
- 601 — Accomodation units, 1947.
- 602 — The “Vostok” Cinema.
- 603 — Troitse-Lykovo Village. Court Village since the XVI century.
- 604 — Two 3-storeyed houses, 1950.
- 605 — Permanent fire position, 1941.
- 606 — V.A. Nosenkov’s Datcha, 1909.
- 607 — V.V. Luzhsky’s datcha “Seagull” (“Chayka”) (after 1917 — the holiday-home “Chayka”), 1904, by V.A. Simov, L.A. Vesnin. Here stayed V.I. Lenin in 1920.
- 608 — Fragments of stone fence. V.A. Nosenkov’s datcha, by V.A. Simov, L.A. Vesnin.
- 609 — Datcha “Grekovka”, by V.A. Simov, 1890s.
- 610 — Spas Preobrazheniya Church in Spasskoye-Tushino, the 2nd half of the XIX century, engineer V.O. Gruzzdin.
- 611 — Aeroclub named after V.P. Chkalov in Zemlyanoy Val, 1935, engineer V.M. Svetlichnyi. The club was visited by I.V. Stalin, A.V. Kosarev, M.N. Tukhachevsky, V.P. Tchkalov.
- 612 — Zeger’s Datcha in Pokrovskoye-Glebovo, 1898.
- 613 — “Pokrovskoye” Estate («Glebovo-Streshnevo»), XVIII–XIX centuries
- 614 — Spas Village.
- 615 — The ensemble of Bratsevo Estate, XVIII–XIX centuries.
- 616 — Datcha in Kuntsevo, the early XX century.
- 617 — Datcha in Kuntsevo, the early XX century.
- 618 — Cemetery in Kuntsevo.
- 619 — The ensemble of accomodation units in the 11th block of Kuntsevo district, 1950s.
- 620 — The Minsk Cinema.
- 621 — The Petrovskii Transit Palace, by M. F. Kazakov, 1775–1782.
- 622 — Unfinished construction project of Medical Center.
- 623 — Cancer Center, 1980s.
- 624 — Culture Center of Hosiery factory in Tushino, 1950.
- 625 — Accomodation unit, 1900.





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M O S C O W

Life Beyond the Centre

Moscow has expanded ten times in the last five decades. These new territories are not organically developed urban regions, but the result of a four-pronged project: political, social, economic and architectural. In a sociopolitical sense, this is an implemented project of the new Soviet man. Two issues are crucially important here. Firstly, it is the idea of financial equality, which sees any sort of differentiation in the lifestyle of people as a defect, which needs to be corrected. Secondly, it is reasoning over social mind, which only anticipates those social unions that are approved by the government or by work place.

Ideally speaking, a peripheral citizen is a person not burdened by traditions, the one who exercises his or her social activity within the bounds of professional or political unions at the work place. Therefore, there is no mechanism of forming local communities. These territories are constructed in such a way that they don't stimulate their own development agenda — it is to come from outwards to solve inward problems. From the economic point of view, we see an implemented project of industrial modernization. Residential districts wouldn't operate beyond the concept of industrial city. Fordist industrialization required a great standard workforce (Moscow's workforce reached 5 million). Residential districts were intended to localize and generate workforce which, in their turn need to be transported to work and back home, need to be housed, need to be fed, taught, cured and so on. On the scale of these challenges, each was met by creating a corresponding type of industry: housing, catering, education, which likewise required a workforce. The workforce was to be standardized in the same way

as released products. That is the reason why there was a necessity to create similar conditions of living, provision, food, social and cultural resources on the metropolitan scale.

Cities growing naturally develop differentially — they are recognized by their variability. The urban city is visa-versa recognized by its oneness. The very picture of such thinking would be a matrix with even cells, no center nor a periphery. In an urban sense, it is an implemented project of avant-garde modernization. Houses are seen as machines for sleeping. Machines are put out on an industrial level. Industrialization demands the highest possible standardization in order to cut down expenses. A project solution is reached either due to its functional bonuses and/or its cost effectiveness; and the only right way is the cheapest and the most functional one. This is the common trait of what has promoted Moscow peripheries, populated in four modernistic flows (late-1950s to the 1960s — Khrushchev flow, early Socmodernizm; 1970s — Brezhnev flow, developed Socmodernizm; 1980s to the early-1990s — late-Soviet flow; 2000s — demolition of five-storey buildings and peripheral reconstruction). Each of these flows is denoted by its own technologies development, and economic levels. Three trajectories of the project—political, economic and urban—were tightly interconnected and brought forward the phenomenon of sustainable artificial settlements. The Moscow outskirts stand out with their rather high living standards. According to social censuses, peripheral citizens positively evaluate their location and apartments and, except for a few isolated regions (Kapotnya and Golyanovo), do not feel secluded and do not yearn to move to the center. But some essential aspects of the

Socmodernizm project turned to be unnecessary in modern-day life and still exist in an almost archeological condition, what they were designed for — industrial zones. Industrial zones thus far occupy 16% of the territory of Moscow, and to speak about their effectiveness is a thorny subject. 91% of industrial zones are privately owned, so they are valued as territorial assets. They are operated by 5% of the capital's population with the proportion of one-third working profitably, one third unprofitably and one-third redundant.

Then, there is a system of peripheral centers. Socmodernistic projects saw it necessary to create sociopolitical centers in residential districts. Our research distinguished a lot of such centers at the stage of initial urban drafts, although these are “sleeping” centers; neither functioning well nor tying districts together. When healthcare, welfare and education networks are codified and thus continue to exist, when commerce and services sector drastically change in a new competitive environment, arts venues (libraries, clubs, exhibition halls, theatres and cinemas) are in minimal demand in the outskirts. Despite the steps which the Moscow government is taking, these forced measures to keep those commercial structures afloat reasonably have no bright future.

There is also a differentiation of the Socmodernistic periphery within the framework of several projects. Each of the four modernization flows was fixated on the new level of technical and social progress the country reached at that time. However, we are not determining any discrepancies between different types of urban solutions, neither by market-value appraisal (correlation between property prices and the “age” of buildings is very low), nor by cultural reflection (after

the first “Cheremushki” micro district, which turned into a common name for all the residential districts, no Moscow modernist region or project had a name given it by the cultural tradition). Society just didn’t pay attention to efforts to improve life in such districts.

The basic valuable facilities we see in a Socmodernistic project happened to be of high demanded (amid urban structure facilities there are, first of all, green belt, parks — most of the respondents consider parks to be the main advantage of their living zone, when actually parks are all around the city). Special facilities introduced into each of the districts or existing there originally—typical architectural and planning solutions, presence of architectural monuments, cultural institutions, specific factories—were either leveled out or went unnoticed. As a result of this, we have a huge homogeneous platform where districts differ in no way and have no personal architecture, culture, social face, or even a name. Social networks data analysis, conducted in the course of this research traces connotations applied to Moscow toponyms — demonstrates shocking results — the gigantic Moscow territory is practically not mentioned in social networks, either positively or negatively. In other words, it is missing from the conscious image of place they inhabit. Trying to picture a mental map of Moscow periphery we find a blank sheet — people don’t think about where they are located.

As sociological data shows, this is a rather stable society, although not very tightly laced. Our research showed surprisingly the low mobility of Moscow citizens — two-thirds of them, in fact, don’t get out of the boundaries of their district, don’t use the city as a whole and don’t use its center. (This is reliable information, also backed by

independent study of Big Data and Society). Women, children, the retired and many young people don't live in Moscow — they live in their own small districts.

Those who circulate around the city are men of working age (and migrants). Despite the fact that Moscow is considered to be a Europe-like city, its lifestyle is more pro-Western — the absolute majority of women only leave their flats to go within walking distance. The sole explanation of why they are living in Moscow could be the fact that their husbands are working there: this has nothing in common with how European or American cities are set out.

Surprisingly, the Moscow of the 21st century, one of the largest metropolises of the world, is still reproducing traits of a “big village.” The main irritation factor, according to our census, is the appearance of “foes”, or people of non-Russian origin in the territory. And due to the fact that the large majority of citizens are not aboriginal inhabitants, this “friend/foe” recognizing system works in a rather xenophobic way.

At the suggestion of Alexei Levinson, shared by all the research curators, here we deal with the Soviet way of life without the Soviet mobilization of the economy, which could reproduce itself in its way. This kind of a city has greater stability — in general, people are satisfied with their conditions and don't feel any need for drastic change. But despite that, it is still a city of lower development possibilities. Provisions for such a society are possible only with oil and gas revenues, which Moscow receives in the form of taxes and redistributes as welfare payments. The main product which Moscow sells on the external market, is a square meter (this defines Moscow

economy as an economy of plantation type) — and financial resources to buy this product are also generated from the oil and gas market. Moscow is the 30th world's economy and this economy is seriously suffering from the Dutch disease.

Moscow housing square meters still represent the main value for citizens — the same meters are sold out on the external market. Our research also shows that a mechanism of quality retrogression operates cyclically, and there is no easy way out of it. The city needs a different economic model of development, but there is no money for an alternative policy. The urban population prefers not to take part in city matters. Only 0.09% of the budget income totals the land tax, 0.004% personal property tax and 5.7% corporate property tax. However, according to the research, attempts to change this situation by introducing land-surveying might be fraught with harsh social consequences.

Furthermore, the problem is that the newly formed periphery is not really willing to interact with externally impacting factors. Research on city policies show that, generally speaking, citizens don't respond to what local governments are doing; they don't comprehend their structure and fields of competence; and only recognize the number one person in the city (but with no clear understanding of his or her agenda). In addition to that, civil society initiatives—quite frequent, as the research shows, also don't find any broad response in solving municipal matters, except for the most general ones, such as combating corruption and migrant inflows. Any economic initiatives, especially in the field of development, only spark negative reactions from the citizens. Mostly, from their point of view, they are living a

good life and don't want to be bothered.

In fact, this is not possible. The modernistic periphery is a perishable urban fabric, in this way different from previous urban formations; which also wore off, but were not intended to be demolished. It was thought necessary to reconstruct and refurbish them over and over again. In our case we have a different situation — the question of a total renewal of standard housing will certainly arise after the demolition of five-storey buildings that began in the 2000s, and all the examined territory could become an arena of fundamental urban transformations for the next thirty years.

World practice shows that there are three possible scenarios for Moscow's peripheral development, which differ from each other depending on who is an active subject; governance and large development business, citizens and bank capital or citizens and municipal budgets.

We find examples of the first scenario in Asian countries — this is when a skyscraper springs up to house the whole prior district. It is typical of China, Hong Kong, Singapore. But this type of development is only rolled out under conditions of strong authoritarian governance and large-scale business interacting with it. Moscow tried to follow this path in the 2000s ("City," "Donstroy" residential compounds), but this scenario would only have worked under conditions of total reconstruction of all the prior city networks — the existing transport, engineering and social infrastructure cannot deal with growing pressure of these compounds.

Yury Luzhkov made attempts to use the existing infrastructure with such new-builds, but it only caused a deterioration of quality of life in

neighborhoods and activated social unrest — it led to a growing need for larger investments into engineering infrastructure at the expense of the municipal budget for the benefit of private developers. This is only possible if governance is powerful enough to suppress tensions amongst the population, and if the economy is strong to the extent of giving out large budget investments.

The second scenario is implemented in Anglo-Saxon countries — these are peripheral districts developed in the “garden city” typology, with cottage and townhouse building sites. This is a classical American or English suburban area that reflects the idea of a free civilian who has significant rights, high levels of welfare and statute-restricted ruling rights. This scenario requires the decentralization of water supply, sewerage and electricity networks due to the fact that centralized management of such long mileage networks is economically absurd. This development is possible with the presence of a strong middle class. Attempts to artificially create it, in order to solve mass housing problem, only lead to economic disasters on the level of the USA mortgage crisis of 2008, which triggered the world's economic recession.

And the third possible way is the reconstruction of modernistic industrial housing by replacing its engineering systems and by warming and refurbishing facades. Berlin tried out this scheme in the 1990s and 2000s, having met the challenge of periphery reconstruction, the challenge being analogous to what we're seeing today in Moscow (socialist building projects in East Berlin). This is the most “sparing” variant regarding the city population — it doesn't require large investments in property and doesn't deteriorate living

conditions. The only drawback of this scenario is the fact that the municipal budget is forced to undertake practically all the expenses, which is only possible as long as the state allocates huge investment into urban development, as taxes would surely not be enough. This happened in Germany after reunification, but no European country has since tried this again due to economic factors. However, all the strategies have significant weaknesses, which is why we haven't yet made our own decision. But decisions have to be taken, choices have to be made — the problem is real and needs to be solved.

We need a cohesive strategy of urban periphery development. Our research paper simply suggests one possible way, adapted from a Berlin scenario where the general structure of the urban region would remain as it is — with slight modifications. In this regard, we need to pay attention to spontaneously emerging peripheral centers, places of enhanced vitality, not foreseen by an urban structure (research call such places “megacities”) — Sokol, Cheremushki, Cherkizovo and Marino. These are the places where any kind of involvement—urban, economic or political—resonates most of all. On the other hand, the majority of peripheral regions may be advanced by improving those parts of modernistic project which are “inactive” — in this way, numerous parks would let us raise the question of creating the system of the urban super-park; industrial zones could become new places of work applications — in the same way as modernistic centers. For a new architectural policy it is essential to emphasize strengths of Soviet urban landscapes, like accessibility and connectedness that prevent these landscapes from being fragmented and turned into a “ghetto”, and to overcome the weaknesses — variability

and centrality deficit, which is now balanced by spontaneous self-organization processes.

In our view, these ideas could enhance the environmental quality of urban life. But the main challenges for urban peripheries deal not only with the issue of enhanced urban quality, but with the necessity to make a choice between different models of economic and social development. In order to cope with economic taints that fall back on housing rent we need to enlarge social and cultural productivity of the urban environment — which in turn encourages the growth of human capital.

None of Moscow's development challenges can be solved within the bounds of narrow-branch approaches — they require a mix of interconnected programs taking into account both the potentials (social, political and others) and the expenses of economic and technological solutions.

New city management and monitoring technologies, Big Data processing and analysis systems — all this will help to make governance processes more precise and more focused on correcting existing imbalances.

The door to a renewed policy is still open and we still have time and resources to make all the necessary modifications. An emphasis on the potential of the periphery is bound to lead to a balanced and sustainable development of Moscow and its agglomeration.

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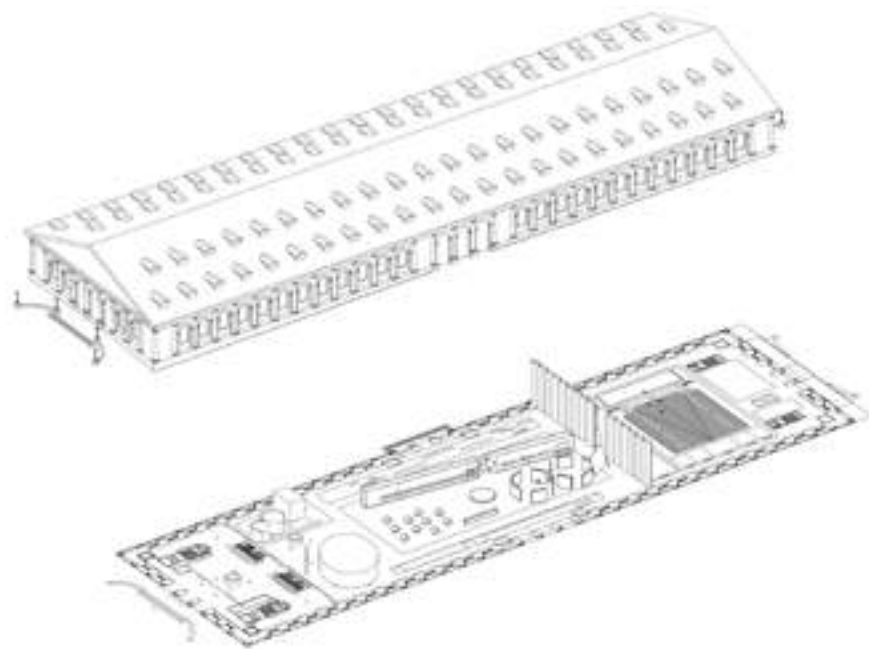
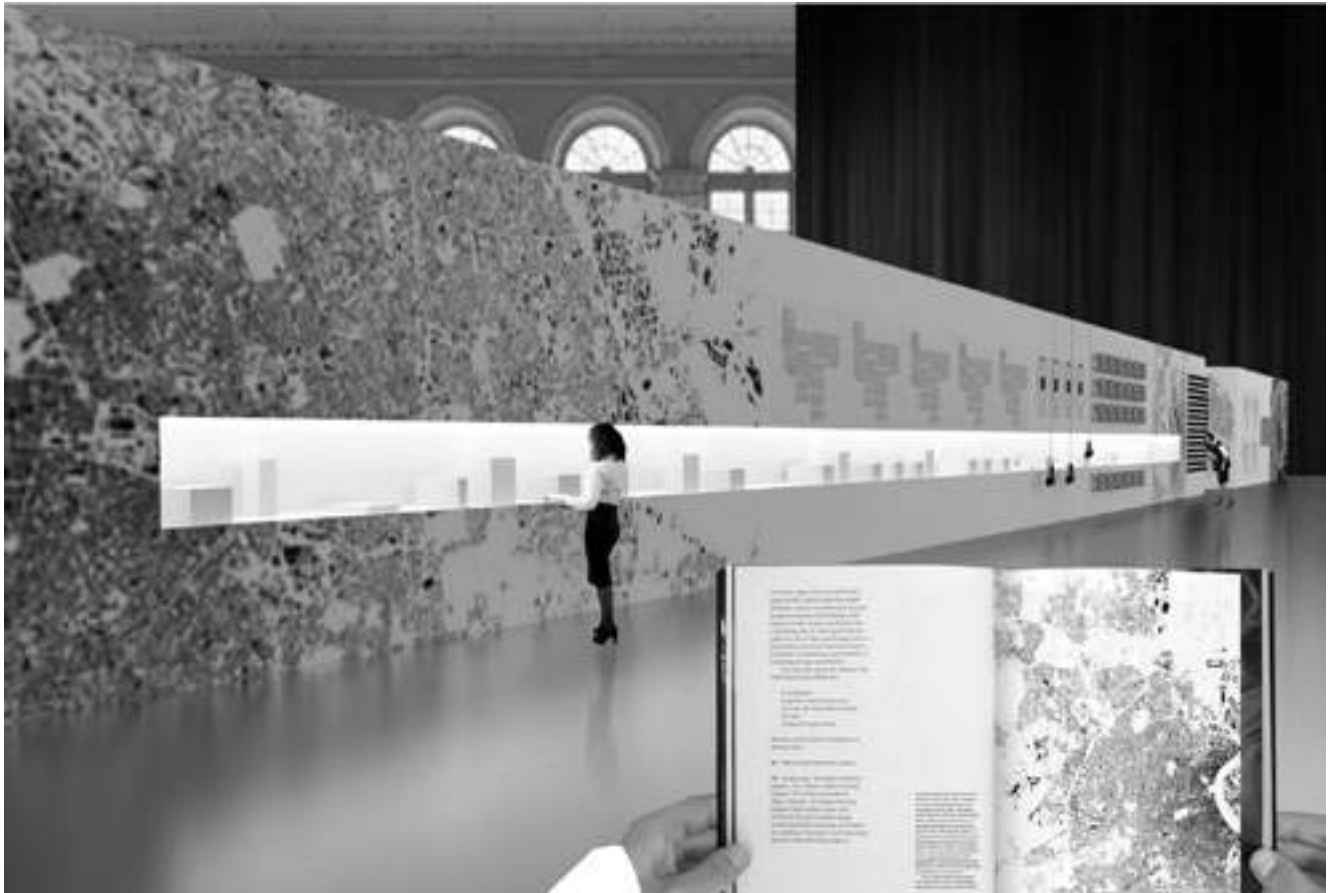
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Археология периферии



RESEARCH FOR THE MOSCOW URBAN FORUM 2013
MEGACITIES: SUCCESS BEYOND THE CENTRE

Research team PROJECT MEGANOM / STRELKA Institute for Media, Architecture and Design

It is over to you, dear reader. The peripheral in urban, architectural and critical terms is one of those concepts we can now see is attracted to and by association. Often pulled to the margins of society and structure; it cannot let go. It attracts poets, writers, filmmakers, drifters; they enter the transit zone that offers life its extra curricular richness. Periphery resonates with margin, with the residual and the liminal; that prosthetic limb that keeps an otherwise damaged body not only going but competing. The peripheral is replete with tension, dislikes words like 'replete'. Defined by what it is not, the centre — the land that is not? The peripheral is not the centre but it might become that...

Roger Connah, editor