I started my research on the new Russian technology coworking spaces at a cemetery. Unexpectedly, the Skolkovo “Innovative City,” that famous technopark launched by the state for the development of new Russian technologies, was not easy to find. Although not far from Moscow, there were no road signs directing toward it and I had to follow a GPS navigator that gave ridiculous directions. I lost my way, and while standing in front of the cemetery’s gates I wondered how many people had abandoned any attempt to find Skolkovo. When I finally reoriented myself and reached the edges of the technopark, I was greeted by a barbed-wire fence and a locked gate. This confirmed my doubts: it would not be easy to enter this place. Behind the fence, there were several gray buildings under construction sporting the letters “Sk,” the symbol of Skolkovo, but unable to pass through the gate or find an official parking lot, I left my car in a small lot (where I later found a “No Parking” sign), and managed to flag down one of the official corporate buses—the only vehicles granted access into the premises—which took me into the compound.

The Skolkovo “Innovative City” has been criticized for many things: inefficiency, corruption, high rents, a complicated architectural plan, and a failing program for the support of residential startup companies (Latynina 2013; Reyter and Golunov 2015; Vedomosti 2015). Nevertheless, my experience was that there were two other primary impediments to Skolkovo’s success and to the development of the startup companies located therein: first, Skolkovo’s geographical isolation from, and lack of robust infrastructural connection to, the city of Moscow; and second, the Innovative City’s underdeveloped urban environment.
If my initial impressions of Skolkovo were colored by the difficulties of accessing it, my first experiences at the Moscow hackerspace Neuron were quite the opposite. Due to its location in the Moscow city center it became a place of coworking of independent professionals and startup companies who were eager to find a collaborative environment with appropriate social and highly developed urban infrastructure. Unlike Skolkovo, the hackerspace is part of the self-organized creative quarter Khokhlovka where different initiatives coexist following the vibe of self-organization and grassroots movement. There are no fancy buildings or barbed fences; moreover, the quarter looks quite shabby with old paint on the walls of the buildings, different graffiti, and posters that define the “indie” spirit of the place.

These initial impressions, expanded by months more of ethnographic work at both sites, spoke to a problem often ignored in the analysis of contemporary coworking spaces in Russia: the importance of the broader urban environment, as well as the design and organization of internal office space, to the successful development of these coworking spaces and the companies and projects they foster. By taking Skolkovo’s “Innovative City” and the Moscow hackerspace Neuron as indicative contrasting examples, I will attempt to explore these questions of the relationship between spatial organization and the urban environment, and the success of new Russian coworking spaces. In doing so, this chapter will speak to the questions of the relationship between the development of technology startup companies and their proximity to and interconnectedness with, or their separation and isolation from, urban infrastructure, public space, and the forms of sociality such infrastructure and space can foster. Moreover, by taking the urban environment and spatial organization as points of reference, the differences between state-run, top-down organized coworking spaces such as the Skolkovo technopark and independently organized startup spaces such as Neuron can be explored in a new way.

In this chapter, I pursue these questions through ethnographic research at Neuron, where I did four stints of fieldwork from 2013 to 2015, and in Skolkovo, where I spent the summer of 2015. At Neuron, I conducted formal and informal interviews, and monitored internal communications, practices of work and cohabitation, and traced the connections between the hackerspace and the larger urban area in which the hackerspace is located. At Skolkovo, I interviewed workers at residential startup companies, as well as members of Skolkovo’s “Skoltech” University and the management of Skolkovo’s IT cluster. At Skolkovo, I paid particular attention to the Innovative City’s urban infrastructure, as well as to the quotidian dynamics of its versions of
coworking environments. Moreover, I observed the day-to-day use of the premises both by members and visitors, which helped me to analyze specific advantages and problems of the site—as well as its contrasts with Neuron.

COWORKING SPACES, THE URBAN ENVIRONMENT, AND THE “CREATIVE CLASS”

Coworking spaces are often defined as shared workplaces for different sorts of knowledge professionals, working in various “creative” industries—a designation generally referring to industries involved in the production and dissemination of knowledge and information services and technologies. In addition to being office-renting facilities where workers can rent a desk and internet connection, coworking spaces are usually places where independent professionals from different creative fields (e.g., computing, design, art, media, science, and social work) work side-by-side with startup companies. In line with this emphasis on the sharing of space, coworking spaces regularly strive to create an environment focused on making connections, fostering collaboration, and sharing knowledge (Gandini 2015; Leforestier 2009), and thus have often located themselves in downtown, urban areas that boast developed infrastructures and the promise of connections with other creative industries and with public spaces and cultural activities.

Starting in San Francisco in 2005, the coworking phenomenon has become a global movement that has grown with each passing year. Coworking spaces have prospered in the so-called “creative” cities such as London, Berlin, Paris, San Francisco, New York, and Moscow. In these cities, creative industries have come to constitute a large part of the local economy. According to Deskwanted (an online magazine dedicated to coworking spaces) there were nearly 2,500 coworking spaces in 80 countries by mid-2013: 781 in the United States, 154 in the UK, 95 in Brazil, 44 in Poland, 39 in Russia, and 22 in China (Deskwanted 2013).

The spread of coworking spaces and practices of sharing space while working in different companies and on different projects has followed what Richard Florida has called the “rise of the creative class” (2002). This new social group combines work with leisure time and mixes private and public spheres, thereby creating a new shared environment for individual work. Florida predicted that the creative class would be the anchor of new economic growth in the early 2000s and, indeed, in the 2000s coworking spaces emerged as a part of the development of the postindustrial economy. Yet the rise of coworking spaces also coincided with the global economic crisis of
2007–9, which in turn gave rise to a critique of this new form of work as representative of unstable, project-based employment engaged in by precarious workers dependent upon professional networks as their decisive source of job acquisition (Bandinelli and Arvidsson 2013; Gandini 2015).

Yet even though members of coworking spaces follow strategies of individual entrepreneurship and self-branding, and are embedded within broader neoliberal economic regimes, these spaces are not subsumable within models of hierarchical, post-Taylorist organization. On the contrary, many such spaces oppose hierarchical organization and the sole motivations of profit maximization and efficiency, relying instead on an “open source community approach” to work collaboratively and establish close communication and the open exchange of knowledge within a community based on equal social relations among member-workers (Leforestier 2009). In this sense, collaboration, openness, community, and sustainability have been named as four principles of coworking spaces (Reed 2007).

Hackerspaces have followed this model of collaboration and openness, and have often attempted to provide both a physical and a social space for freelancers and startup companies. There are many hackerspaces around the world, most of which are small-scale grassroots workshops offering not just workspace but an environment where equipment and skills can be shared and various IT and computing projects can be pursued collaboratively. In this way, hackerspaces appeared to be specific instantiations of this global coworking movement, with hackerspaces composed of creative IT professionals and hobbyists who perceive hacking as a form of collective experimentation, sharing skills, tools, knowledge, and encouragement (Kera 2012; Lindtner 2014).

Coworking hackerspaces have thus often become venues for intensive collaboration as a direct result of sharing space, with members benefiting from the forms of knowledge exchange and innovation this proximity can promote. Indeed, even before coworking spaces emerged, the notion of a shared, common workspace had been regarded as important for business development. Scholars claimed that companies located in the same space benefited from “noise in the area” (Grabher 2002), “local buzz” (Storper and Venables 2004), “local broadcasting” (Owen-Smith and Powell 2004), “face-to-face interaction on site” (Iammarino and McCann 2006), or simply the benefits of “being there” together (Gertler 1995).

However, literature on the spatial benefits of working in shared spaces was primarily concerned with the organization of internal workspace rather than as regards the external urban environment in which these offices were
located. This lack of focus on the broader urban context is even more surprising since a chief assumption has been that coworking spaces were connected to the rise of the “creative city” and the concentration of creative professionals in such urban environments (Landry 2008). Nevertheless, the urban environment and the choice of location for coworking spaces have received less attention from commentators in considering which factors are most important for the success of these spaces.

While the success of coworking spaces has been largely motivated by the independent, grassroots organization of shared workspaces, the economic importance of the creative sector—and the IT sector in particular—has led many governments to seek to emulate the organizational principles of private coworking spaces in the establishment of state-sponsored high-tech initiatives. One site in which this attempt has been made is in the construction of “technoparks.” The term “technopark” is often used to refer to state-sponsored initiatives that attempt to establish collaborative relations between multiple technology companies, working in diverse sectors and often in conversation with local or on-site universities, within a shared territory or “park.” The goal of technoparks is generally to facilitate economic development and innovation through such collaboration within a shared locale. Often technoparks provide space for tech companies’ offices, coworking spaces for startup companies, as well as industrial sites for small-scale tech production.

Research on technoparks has revealed, however, that the proximity provided by shared geographical space is not a guarantee of cooperation among the firms located therein. For example, only 10 percent of interactions of high-tech firms located in the METU-Technopolis in Ankara, Turkey, took place within the park itself, while the majority of communications were with outside groups, with 64 percent of these interactions taking place either with groups outside of Ankara or with foreign companies (Aslan and Wasti 2015). While the research neither mentioned exactly what prevented companies from interacting within the space of the technopark nor addressed the question of how companies could build ties in the city of Ankara while being located on its outskirts, the implication was that the primacy of the internet for communication reduced the importance of geography and shared space for contact and collaboration.

This implication that new communication technologies reduce the importance of distance and spatial organization for the development of high-tech companies raises the question of whether considerations of spatial organization and urban location still matter for the encouragement of innovation and the overall success of such companies. Yet if such considerations...
are indeed no longer important, how can we explain the many successes achieved by the model of coworking spaces and the forms of innovative collaboration this model has been able to encourage? Undoubtedly, there are many differences between state-sponsored technoparks and independent coworking spaces, such as the horizontal organization of independent coworking spaces versus the highly regulated, top-down organization of many technoparks. However, another major difference between many private coworking spaces and state-sponsored technoparks lies in where they are located and how they are organized spatially—a difference I will examine below in regard to the Russian technopark Skolkovo and the Moscow coworking hackerspace Neuron.

THE URBAN ROOTS OF RUSSIAN COWORKING SPACES AND TECHNOPARKS

Since the 2010s, the Russian startup movement has been divided between those who chose private coworking spaces and those who opted to work in state-sponsored technoparks (Solodovnikov 2011). Technoparks have been established in many Russian cities to host both IT startups and large technology companies. While there are currently about ninety of them in Russia, most are still in various stages of construction and design and are not yet functional. For instance, in this volume we pay attention to a technopark in the Tatarstan region, an ecosystem envisioned as a site where innovations would thrive by creating a gathering place for the local IT community. The park provided office space for IT park residents (mostly startup companies), independent software developers, and research groups (Kontareva, this volume).

According to research by Ernst and Young and the Russian Venture Company (RVC) (2014, 14) research, 86 percent of those who work in Russian technoparks are concentrated in the sphere of IT and high tech. While operational Russian technoparks demonstrate similar results to their Western counterparts in terms of ensuring the survival of startup companies within a shared environment, the report points out that in many of the technoparks there is “no special space for public events and socialization in an informal atmosphere,” which limits development of the companies in many ways. The absence of such spaces prevents startup companies from building informal collaboration.

Furthermore, the report revealed that Russian technoparks are often isolated from outside visitors, with outsiders generally not permitted to access any of the technoparks’ facilities, which makes collaboration with outside
groups difficult (Ernst & Young and rvc 2014, 14). For instance, this isolation is visible through the organization and availability of infrastructure. On the one hand, many technoparks lack technological equipment, the absence of which prevents or slows down the development of startup companies. On the other hand, in the technoparks that do have equipment and facilities this infrastructure is often underused by residents. In general, therefore, Russian technoparks have too often focused on the organization of internal space (e.g., providing office space and meeting and conference rooms) while underestimating the importance of urban infrastructure and connections to the outside world.

On the contrary, successful private coworking spaces in Russia have tended to be located in developed urban areas and have maintained connections with outside groups in the area. Thus, most Russian coworking spaces are in Moscow, with the most popular coworking spaces there located in creative clusters such as Artplay, Strelka, and Winzavod (Dorman 2011). Such coworking spaces choose their locations based on the comfort, convenience, and infrastructure of an area, as well as for the cultural activities and social spaces available there. For instance, the proximity of metro stations and affordable parking became important factors for the Moscow coworking space called “#tech.” In their blog, the organizers of this space shared the story of their search for a location:

We researched all the factors: simplicity of access (if it is easy to find the place for the first time without knowing exactly where it is); the exterior of the building (if it is possible to explain even to a foreigner where we are); who the neighbors are; if it is possible to arrange collaboration with other companies in the area; the view from the windows; proximity to hotels and cafes; the possibility for future enlargement of the co-working space; proximity to an external conference hall [etc.]. (Ttech 2014)

While this statement testifies once again to the importance of urban location for coworking spaces, it also speaks to an additional problem faced by both independent coworking spaces and technoparks: the high rates of “brain drain” and highly skilled migration among young technology professionals in Russia. As others in this volume have discussed with regard to Russians leaving the country for the US, Finland, the UK, Estonia, and Israel (see West; Shatokhina; Antoschyuk; Savchenko; and Fedorova on Israel, all in this volume), the problem of brain drain has forced Russian-based initiatives to come up with ways to attract such knowledge professionals to either stay in or return to Russia. This problem of brain drain is exacerbated in the
technology sector as many successful Russian IT startups have proved that their businesses can succeed online, in virtual rather than physical spaces. Without a need for a physical location in Russia, such startups have tended to leave the country, aided by the mobility characteristic of the virtuality of their work environment, by the attractiveness of robust foreign markets, and by the possibility of increased investment and supportive innovation policies in other countries (Appell 2015; Prorokov 2015).

While many studies on emigration and brain drain from Russia have focused on such rationales for and experiences of leaving the country, there has been less attention to those individuals and companies who have decided to stay. In this volume, we make a contribution to this scholarship, as Marina Fedorova does in chapter 2 with regard to one of the oldest Russian IT companies, Yandex, which has proved successful in creating high-quality software and even its own school for programmers while remaining in Russia. In this chapter, I also attempt to intervene in this subject by focusing on Skolkovo and Neuron—both of which were designed to give technology practitioners an incentive to either come back to or refrain from leaving Russia by creating innovative spaces where different specialists, scholars, and teams of startup companies (and in the case of Skolkovo, even investors) can collaborate in a shared space or defined geographical area.

As noted above, Skolkovo was an ambitious state project to promote the development of high-tech industries and modernize the Russian economy. The initiative was criticized from the start: not everyone was convinced by the ambitious plan to build the entire Innovative City on the outskirts of Moscow. In 2010, the main argument against Skolkovo was that while it gestured toward Silicon Valley, it continued to follow the template of the old Soviet “science cities”; yet rather than support existing cities, the state decided to build a new one (Boyarskiy 2010).

While for the last five years Skolkovo has reported the success of its startup companies (sk 2015a, 2015b), one should note that most of them worked outside the technopark because its buildings were still under construction. By 2015, the first group of companies moved into temporary buildings; however, the main building has not yet been completed, due to the “excessive monumentality” of the architectural project (Kosobokova and Petlevoy 2012). Indeed, Skolkovo’s management wanted the Innovative City “to be a site of architectural landmarks” (Kochetova 2015) and famous architects participated in a competition to build it. Finally, the French architectural firm AREP was awarded €195,000 for its development. However, the urban specialist Evert Verhagen, who participated in Skolkovo's
City-Planning Council, claimed that while Skolkovo's administration spent a huge budget on attracting famous architects to design the buildings, they did not ask whether the location was suitable for the development of innovative projects and academic institutions (as a new technical university was also to be built on the premises) (Reyter and Golunov 2015). As a result, the long drawn-out construction and the isolated location became significant obstacles to creating a comfortable environment for the development of the startup companies located there.

By contrast, in 2014 the hackerspace Neuron was named one of the best Russian coworking spaces for high-tech startup companies (Grebnev 2014). Aleksandr, one of Neuron's founders, wrote on Facebook: “I was shocked by the success of the hackerspace. The four startup companies that settled there at the beginning already had success in developing into international enterprises. All the companies that have been ‘living’ with us for several months are rapidly developing as well, even though we don’t have any educational programs or special events for startup companies. Isn’t it an enigma?” Indeed, the hackerspace has been an outstanding success, though on a small scale—it is a tiny coworking space for the simultaneous work of no more than forty people. Neuron is an example of a coworking space that is attentive to the urban context of its development. It moved into a creative cluster called Khokhlovka and, among other factors, the urban environment supported the hackerspace’s community values, such as the open exchange of skills and knowledge, self-organization, horizontal relations within the community, and openness in the development of new technologies.

In the following sections I will examine the differences between Neuron and Skolkovo in more detail, parsing these questions of the relationship between the growth of the technology sector in Russia and the dynamics of spatial organization, urban location, and extant infrastructure, as well as the impact of these on innovation and collaboration within independent coworking spaces such as Neuron and large, state-run technoparks such as Skolkovo.

THE NEURON HACKERSPACE

The Neuron hackerspace was officially founded by two IT professionals, Aleksandr and Alisa. In fact, however, Neuron’s establishment was the product of the collaboration of a number of small, independent startup companies that had been trying to create a coworking space for collaborative work. The goal of these original members was to create a shared space that
could support collaborative work on various tech projects, with members sharing tools, ideas, and inspiration. This spirit of collaboration and shared space subsequently attracted other startup teams and freelancers to join the hackerspace and become members. Yet even as the number of members has grown, and while the companies and freelancers at Neuron pursue separate projects, they retain this ethos of working together and assisting each other on specific tasks.

Aleksandr explained that there were several reasons to launch Neuron. First, several groups needed a place to work. Prior to settling into Neuron, Aleksandr’s own company, Fairwaves, which assembles telecommunication software and equipment, had lacked office space and its members had been forced to work individually at home. But the major reason for founding Neuron was to create an alternative space for IT and engineering startups, with a different culture and ethos from what Neuron’s founding members saw as the “boring” IT business scene in Moscow. There was a practical goal as well: to transform informal gatherings of self-avowed computer geeks into a more formalized arrangement in which people could collaborate in order to develop projects that could either remain hobbies or become the basis for launching, as Aleksandr explains, “companies where Russian engineers can work without needing to leave Russia”—the issue of the brain drain of young Russian hackers, scientists, and engineers being one of deep personal concern for Aleksandr and many other members of the hackerspace.

Neuron’s physical space consists of eight zones, which are organized in five separate rooms. Three companies (Fairwaves, Cubic Robotics, and Lab3DPrint) have private premises, while other companies share the rest of the space with freelancers and other visitors. This interconnected area has become the main public space, sustaining conversations and collaborations between different companies and their members.

Neuron is a noncommercial space, meaning that its founders do not seek to make a profit from maintaining and renting it to its members, even though it is not officially registered as a nonprofit entity. The studio provides an environment for sharing knowledge and experience while also giving its members access to the tools and equipment (e.g., various electronic components and engineering tools) necessary for their projects. Membership fees provide a budget for communal and administrative expenses, and members pay both a fee to maintain the space and rent that amounts to about 380,000 rubles per month (about $4,500). People in the hackerspace are divided into “static” (more permanent) members who have private desks, and “dynamic” (less permanent) members who do not have their own workspace.
but rather occupy any vacant table. Static membership costs 10,000 rubles ($130) per month, and dynamic members pay 3,000 rubles ($50) per month. In addition to these membership fees, Neuron sometimes issues one-day passes for people who are nonmembers but want to use the space from time to time. People who are interested in high tech can easily become members but, as Aleksey, a freelancer, explains, any person who disturbs other members will be asked to leave.

Besides providing space for freelancers and startup companies, the hackerspace operates as a sort of social club, hosting a variety of workshops, classes, competitions, and social events for IT professionals and the general public. These activities help to develop collaborative networks and attract potential new members. Hence, the organization of the internal workspace and its utilization for promoting social activities has been an important factor for developing the community and building an appropriate environment for innovation.

THE HACKERSPACE AND THE URBAN CREATIVE QUARTER

Moscow is a global city, and as with any modern city of its size the most active social interactions and resources are in the downtown area. Yet the radial structure of transport flows and areas of mass housing located at the periphery have given rise to several separated “meta-cities,” which are self-sustained areas that are relatively unconnected to each other or to the downtown area (Revzin, Tarnovetskaia, and Chubukova 2013). At first, Moscow hackerspaces developed as part of one of these “meta-cities” in the southwest of Moscow, with Neuron initially setting up in 2011 in the Luzhnetskaya embankment, on the edge of the Third Ring Road that now borders downtown Moscow.

While Neuron’s founders had been at first attracted to this space further from the city center, they soon realized that the remote location inhibited the development of the community and their members’ individual projects. With these considerations in mind, along with the annoyances of a leaky roof and broken heating system, Neuron decided to move downtown to the creative quarter called Khokhlovka, in the Kitay-gorod district. This location was deliberately chosen for its relatively cheap rent and for its location in the heart of Moscow, bordering the city’s chain of central squares, most notably the Red Square, just a few blocks from the Kremlin.

The space Neuron moved into is a seventeenth-century palace that was originally built for a diplomat working for the Muscovite tsars. Being an
architectural landmark, the surviving part of the palace was painted white with red ornamental framings on the windows. However, the other newer additions to the palace complex fell into disrepair; old brick lost its bright color and the walls were plastered with posters and graffiti. These days, the area exudes an artistic, creative, countercultural atmosphere. The quarter mostly consists of small unmarked cafés, clubs for dancing, studios for drawing and other arts, and vintage stores or tiny shops with handmade products. As Fedor, a startup entrepreneur, put it, “there is an ‘indie’ spirit here at Khokhlovka.” Even though the hackerspace does not share common projects or joint work-related activities with its neighbors, the communal atmosphere, the stream of visitors, and the rhythm of work in the area unites different organizations into one cluster. The clients of these small enterprises could be visitors to the hackerspace as well. The hackerspace chose this location because it shares the spirit of an “indie” movement that takes pride in its self-organization and independence from large institutions and the state. As Fedor explained, Khokhlovka “developed very naturally, organically, as a creative oasis and quarter,” without any investment from big corporations and developers, as was the case for the Red October quarter or Flacon in Moscow. Another resident noted that Khokhlovka is a self-organized community; it does not look fancy with its assorted street graffiti, old furniture, and peeling paint on the walls (Narushevich and Dymchishina 2014).

The hackerspace fit well into this independent, countercultural quarter. Neuron was organized as more than just a coworking space: it was intended to be a close-knit community of people with a shared interest in IT and other high-tech projects with a shared DIY (do-it-yourself) attitude. It was important for Neuron’s founders that people could drop in after their normal workday and use the office spaces for their own personal projects, and Khokhlovka was the right place because of the nearby Kitay-gorod metro station and the attractiveness of its “indie” culture. For instance, Aleksandr, who is an IT specialist, started to come to the hackerspace as a hobby because he was interested in sound systems and liked coming to the area, but later joined the startup company Cubic Robotics and moved to the hackerspace full-time.

Neuron uses the communally shared courtyard as a space for socializing as well as for work. Its members found ways of exchanging experiences with members of other creative studios located at Khokhlovka. For instance, Nikita, an employee of Lab3DPrint, was able to test his self-made motor kick-scooter in the courtyard without any objections. The courtyard also became the place for common events at Khokhlovka, including a barbecue
organized by Neuron with residents of Impact Hub Moscow, a hackerspace for social entrepreneurs.

But even more important for the hackerspace is the shared rhythm of life and work that marks the cluster as a whole: while it opens around noon every day, peak activity is in the evening and you can usually find people still hanging around at midnight. Consequently, Neuron fit comfortably into the cluster and became an integral part of this small community, while also laying claim to being part of the global city around it—a positionality that has facilitated Neuron’s development.

Not everybody, however, would consider Khokhlovka an appropriate location for a coworking space. Vladimir, who entered the hackerspace on a day pass, confided that for him the coworking spaces at Gorky Park were preferable (Kirillova 2015). He was not comfortable with Khokhlovka’s vibe and was “afraid to walk in the evening” in these “dark backstreets” because he thought he might be robbed. Vladimir’s feeling is emblematic of the fact that people who do not feel the “indie spirit” of Khokhlovka see only shabbiness and do not usually stay in the hackerspace for very long.

In sum, the location of the creative cluster in Khokhlovka influences the shaping of the hackerspace community and the development of its companies and projects. Khokhlovka’s location, design, and culture provides the hackers with access to the broader Moscow public and facilitates contact with potential new members who share the same ideals of freedom, creativity, and an exchange of ideas. The downtown location also fosters contact with professional networks in the city, which helps to attract potential clients, workers, and collaborators for startup companies. At the same time, the countercultural feel of the area helps to filter out people with different values and priorities that are not consistent with those of the hackerspace community.

SKOLKOVO’S INNOVATIVE CITY AS EXPERIMENT

A very different, top-down initiative to foster a place for innovation in Russia, Skolkovo was inspired by both foreign and Soviet experiences of science and technology development, and has become the symbol of Russian state-led efforts to promote scientific and technological innovation.

Although it was envisioned as a Silicon Valley–type ecosystem where startup companies could find the right entrepreneurial atmosphere and infrastructure to facilitate their growth, its conceptualization in fact followed
old Soviet spatial and organizational models for scientific and technological development. Skolkovo thus appeared to be an echo of the Soviet “science cities” (*naukograd*) that were designed to foster specific scientific fields (e.g., physics, chemistry, biology, aeronautics, etc.) but grew into fully functional small cities with the necessary social infrastructure for scientists and their families (Wade 2013). Indeed, many Russians wondered whether it was necessary to build new cities for technological and scientific development such as Skolkovo when there were still many operating science cities with different areas of specialization all across the country (Boyarskiy 2010). For instance, Zelenograd in the Moscow area and Novosibirsk in Siberia were enclaves for mathematics, electronic engineering, and computer science, and after the collapse of the Soviet Union, scientists there managed to launch high-tech businesses. Yet while such science cities fostered an experimental environment that helped drive successful scientific advances in the Soviet period, many of these cities faced problems integrating themselves into the new market economy after the Soviet Union’s collapse (Tatarchenko and Indukaev, this volume). Hence, the various locations of the Soviet science cities were not considered adequate for building the new “Innovative City.”

Skolkovo was considered to be a political project of then president Dmitry Medvedev. While Silicon Valley emerged from a combination of many local factors as well as public and private initiatives, its Russian replica was designed by the state. Skolkovo was a central part of an ambitious modernization program that was launched to transform the Russian economy and overcome its dependence on the sale of natural resources. In 2010, Medvedev visited Silicon Valley in order “to see with [his] own eyes the origins of success” (Gorlik 2010). He met the CEOs of major American IT corporations such as Apple, Cisco, and Twitter to establish partnerships and look for the secrets of their business success.

In his programmatic article “Go Russia!,” Medvedev declared his economic priorities—the development of a vibrant IT sector among them. This part of the article gained the most attention from both domestic commentators and foreign analysts. Medvedev set the strategic goals for the IT industry’s development as, for example, e-governance, educational programs, and the development of a national network of supercomputers (Appell 2015). The goal here was for Skolkovo to become the center of growth for these new IT industries and, consequently, the IT cluster at Skolkovo became one of its leading departments. While some IT startups believed that their business could be developed in any old café as all they needed was internet access
Skolkovo’s mission was to show how a specialized, centralized location and a collaborative atmosphere could best foster innovation.

The idea of locating the Innovative City at the outskirts of Moscow, removed from existing scientific and business institutions, followed the political will of Medvedev. In fact, Skolkovo became a massive experiment in reforming Russian science and in evolving new technologies and it was envisioned as Russia’s fast track to revive its economy, compete globally in the next industrial revolution of science and technology, and wean itself off its reliance on oil and gas.

One of the main elements of the Innovative City is the Skolkovo Institute of Science and Technology (Skoltech). The university was designed by the Massachusetts Institute of Technology (MIT) and it borrowed from MIT’s organizational model, which meant interdisciplinary research, the combination of research and education, the fostering of innovation and entrepreneurship, and the involvement of international scholars (MIT 2015). MIT signed up to comanage the creation of the university with a contract of over $300 million, and in 2011 Edward F. Crawley, a professor of aeronautics and astronautics and of engineering systems at MIT, became Skoltech’s president.

Skoltech is different from other Russian technology and engineering schools not just in its organizational model but also in how it operates: the new university has less bureaucracy than other post-Soviet universities and it features greater access to modern equipment, higher salaries for professors, and relatively generous fellowships for graduate students (Sitnikov 2014). Despite close collaboration with foreign institutions, Skoltech also strived to repatriate Russia’s lost scientific talent. Skoltech’s president Crawley estimated that 60 percent of its faculty consisted of diasporic Russians who had returned, while 20 to 25 percent of the institute’s faculty were foreigners and only 20 percent had worked at other Russian universities before taking positions at Skoltech (Bodner 2015). Hence, the goal of Skoltech was to replicate a Western university with faculty experienced in foreign educational systems while at the same time luring Russian diaspora scientists back to the country.

Some detachment from Moscow should have allowed foreign professors and students to feel comfortable within this special foreigner-friendly environment. Skolkovo is officially a bilingual space, with all its signs printed in English, and all its staff speak foreign languages. Indeed, scholars were happy to have their labs at Skolkovo, equipped with all the necessary machines for research that could not be funded by other Russian scientific institutions. Additionally, Professor Dzmitry Tsetserukov, who develops IT
and robotics at the university, believes that this attractiveness to foreigners and returning diasporic Russians will increase as soon as Skoltech moves to the new, attractive building at the technopark. A small picture of the future university building at Skolkovo hangs on the wall in his office, a promise of the possibilities for Skoltech’s future. Nevertheless, with the construction projects ongoing, and this building as yet unfinished, this hope of attracting large numbers of foreign researchers and diasporic Russians is still a work in progress.

Skolkovo was intended to demonstrate a new business model wherein scientific projects developed at Skoltech could become successful startup companies at the technopark, and this ecology of innovation would attract other high-tech companies that might become future Skolkovo residents. Aleksey, Skolkovo’s manager, explained that the residents would foster an innovative environment through the exchange of knowledge, the development of common projects, and by collaborating from their private IT and engineering projects to create new innovative products and services.

All the negative effects of a location at the edges of Moscow, transport, and other infrastructural problems should have been compensated for by the development of a professional community within walking distance of each other. Petr, a manager at Skolkovo, believed that the Innovative City would be a site of experimentation to perform the idea of a scientific “gated community,” to which only professionals and other targeted audiences would have access. Nevertheless, seven years have passed since Skolkovo was launched and apparently the remote location and endless construction have created more problems than opportunities. Hopes to establish new spaces for technological innovation in Russia faced the dramatic consequences of changing foreign relations and priorities in internal Russian policy. Mutual sanctions between Russia and Western countries following the political crisis over Ukraine provoked economic crisis in Russia and complicated new technology and science development. Many of Skoltech’s foreign professors abandoned Russia and Crawley himself announced that he would leave when his contract expired in December 2015. Skolkovo as a project aimed at the integration of Russian startup business into the global market faced serious difficulties. Its manager, Aleksey, claims that internal Russian demand for high tech is too low for the development of a whole new set of high-tech companies, so international cooperation is a necessary backdrop for the operation of Skolkovo’s residential companies.

Skolkovo’s Innovative City was designed as an experimental site for science and technology development that would provide the grounds for
growth of new industries and modernize the Russian economy. The Innovative City was an ambitious initiative to create a favorable working environment for intensive collaboration between the state, the university, startup companies, and big corporations. A remote location and special architectural plan should have become the material context for this new process. This ideal plan faced many unexpected difficulties such as the financial crisis, unstable international relations, and changing internal political priorities, but its weak urban infrastructure and tight regulation of its own territory also became major factors resulting in fewer supporters and private initiatives than were anticipated.

A GLOBAL CENTER IN THE MIDDLE OF NOWHERE

Any person visiting Skolkovo can easily see that the Innovative City has an underdeveloped urban environment and poor infrastructural connection to Moscow. The city is located beyond the Moscow Ring Highway (MKAD), a symbolic border of Moscow, and was built in the countryside, surrounded by an elite golf club and a village called Nemchinovka. Its remote location notwithstanding, it is still fenced off even from this sparsely developed area.

At the time of writing, Skolkovo’s buildings remain mostly under construction and visitors can enter the city only on the aforementioned special buses that run across the Innovative City’s territory. Even though experts estimate that Skolkovo’s territory (which covers 15 square miles) is insufficient for building the entire Innovative City with adequate urban infrastructure (Boyarskiy 2010), at present Skolkovo operates on a much smaller scale than its designers intended. In fact, the complex operates in just a few buildings: four temporary structures that are used for the technopark and the university, and two buildings called Hypercube and Matreshka that were designed for exhibitions and public events. Pavel’s company was one of Skolkovo’s first residents, but his team was not able to move in until 2015. Construction continues to lag, and since Pavel’s company moved in only “a kiosk with an ice-cream stand has been built.”

Location and territory are serious issues for Skolkovo because it was envisioned as a destination for thousands of residents, as well as for Skoltech University and offices for large corporations. The failure of this vision is evident in the fact that the majority of the 1,147 putative residents—made up of companies that have gained official status as Skolkovo members—have never been there, while only 81 companies actually rent office space at the technopark as of 2015. Of the 393 residents of the IT cluster, only 21 compa-
nies have so far rented office space at Skolkovo and moved in. Yet Skolkovo cannot host all the companies that have committed to relocate there by 2017, and the temporary buildings available have been far too small to provide premises for all the residents.

The inadequacy of the transport infrastructure has likewise become a significant issue, with a large number of workers spending one to two hours commuting each way to the city as the nearest metro station is miles away. While in the past people could go to Slavyansky Bulvar metro station and then catch a special Skolkovo corporate shuttle bus from there, in July 2015 the Skolkovo administration canceled the corporate shuttle service and chose to rely on Moscow public transportation. But, as could have been foreseen, public buses do not run regularly and include many stops along their routes, exacerbating the already onerous commute for many workers. For instance, Aleksey, a Skoltech employee who lives on the opposite side of Moscow, comes to work two hours early in order to avoid traffic jams. He usually arrives at 7:00 a.m. and sleeps at the office until 9:00 a.m. when work begins.

It is not much easier to get to Skolkovo by car. Aside from the city’s remote location, the addresses of its buildings are hard to find and GPS systems often display incorrect directions to them. A second problem is parking, which is not easy to find and costs as much as parking in downtown Moscow—a fact that forces workers who cannot afford the high parking rates to leave their cars along the access road under signs that say “No parking.” The road infrastructure leading to Skolkovo is likewise a problem: the Innovative City is purposefully designed to accommodate more than ten thousand employees and nearly the same number of visitors per day (Butcher 2015), yet the existing access road is so narrow that two cars can barely pass one another. Easier access may someday be possible, for the plan is to build a regular railroad line to the nearby Trekhgorka railway station, and eventually to build a new metro station at Skolkovo. For the foreseeable future, however, Skolkovo’s administration jokes that only helicopters could resolve the current transportation problems. This comment may have had some seriousness to it, however, as I found a helicopter landing pad included in the miniature model of the future corporate building intended for the Renova group that is headed by Viktor Vekselberg, who is also the president of the Skolkovo Foundation.

The four temporary buildings that currently serve the technopark and Skoltech University were never meant to permanently house the university and company offices. As Pavel explained, you cannot find these buildings on
the initial plan of the Innovative City because they were built in haste while everything else was under construction. These four buildings are all identical and form squares with an inner courtyard inside each building. They were built on the land of a now defunct resort called Polet, whose land was included in the future Innovative City.

One additional reason for Skolkovo’s isolation from Moscow was the hope of creating an “eco city,” a new settlement that would be built according to high ecological standards such as energy and water efficiency and the protection of the natural environment (MN 2012). For now, however, the idea of Skolkovo as an “eco city” has not been realized, with companies located there often complaining that installed eco-friendly systems (air, water, heat, etc.) are neither reliable nor user friendly.

The notion that people would love to work in the countryside also remains unrealized. According to my observations, people would appreciate more public spaces rather than the existing narrow paths in the park, which remain from the Polet resort. Currently, the park only amounts to a beautiful view from the windows of some lucky workers, rather than a space that can be shared by most residents. The former resort’s cottages and other pavilions are occupied by official services such as a customs office, the police and emergency response divisions, and the construction company currently working on site. Moreover, these extant recreational spaces are not of much real use to Skolkovo workers, who are usually busy from 9:00 a.m. to 7:00 p.m. and need more easily accessible spaces which could be used during work breaks. With such accessible spaces absent, the most intensive social life in the entire complex happens at the entrances to the four temporary buildings, where people gather to smoke.

Another busy public zone is the cafeteria, which is the only place to eat for the many workers located in these buildings. There is also a small café that was envisioned as a meeting place for visitors, yet at any given time only four or five tables are occupied and the rest of the café’s premises are empty—a testament to the dearth of visitors to the city. However, it is not that potential clients and partners do not want to come to Skolkovo, but rather that the city’s isolation makes it inconvenient to visit. As Pavel told me, such potential clients and partners “have heard a lot about the Innovative City and would like to see it,” but rarely visit more than once, if at all, because they prefer meeting in downtown Moscow. Skolkovo’s administration probably foresaw that the remote location could hamper development, so they appealed to large corporations to open on-site offices. They are expecting that international companies like Cisco and Boeing will build their
office buildings here, although currently only a few companies such as the Russian trucking company Kamaz and the Korean company Samsung rent tiny offices in the city.

The lack of connection to Moscow is especially apparent in the evening. All cafés are closed by 6:00 p.m., and in the absence of any grocery stores or supermarkets in the area the only option for food is to walk to the nearby village of Nemchinovka. The manager, Petr, suggested that a night café or even a bar is needed, as while few people are currently interested in lingering at the darkened complex after work hours they still need a place to discuss issues and ideas in an informal setting.

Of course, those who moved to the Skolkovo technopark were to some extent already aware of the transport problems, the poor infrastructure, and the rudimentary nature of public spaces. However, many of them underestimated the impact of these shortcomings on their businesses; they were also misled about the business infrastructure that was promised by Skolkovo’s directors. Residents were promised a five-to-seven-year tax holiday; business and technological consulting; extra funding, grants, and investments; public relations support; and lower rents at the Innovative City than in other parts of Moscow. They were also promised enhanced connections with clients both from the government and the business sector that would be facilitated by Skolkovo’s administration.

At the beginning, startups did indeed begin flocking to Skolkovo: it grew from 332 resident companies in 2011 to 793 a year later, and to more than a thousand by 2013. However, in 2015, 141 out of 1,351 were deprived of their residential status and it is expected that more will soon have to leave because they did not develop enough new technology to justify the loans and investments given to them at the outset (Appell 2015). Moreover, even more losses are expected by 2017, when all residential companies will be obliged to settle in the Innovative City. Skolkovo obviously has lost its place on the government’s priority list since Vladimir Putin became president, and in 2015 it was ordered to cut construction costs by 40 percent—a loss of funding that will have a serious impact on the future of Skolkovo. In 2017 a new financial solution was developed (Vedomosti 2017), with the Russian Venture Company (rvc) taking charge of the creation of venture capital foundations to support the IT sector in Skolkovo (see more about rvc in Indukaev, this volume). It is expected that the foundation will invest 100–200 million rubles in ten to twelve startup companies at Skolkovo. Nevertheless, it is of yet difficult to predict the effects this venture capital investment will have on the development of the technopark and its residential companies.
Residents confirmed that Skolkovo initially provided business support but that the absence of urban infrastructure has impeded the development of their companies. Ilya, a technical director at Nanosemantics, explained that the company had a lot of support from Skolkovo initially, but that the underdevelopment of the area and its location has increasingly become a problem. Furthermore, the rent was recently raised to Moscow levels. Ilya’s company is close to the maximum rent it can afford and if the price of office space continues to rise they will leave to find a location with better infrastructure. While Nanosemantics has been waiting for a resolution to these problems, they have hung a huge picture of a city landscape with crowded streets, busy traffic, and high skyscrapers. As one of the managers at Nanosemantics noted, just the image of a city and its high energy seemed to motivate his work.

Perhaps sensing that its efforts to support the business development of startup companies were floundering, the Skolkovo 17 cluster decided in 2015 to open a hackerspace as a coworking space for residents who could not afford an office at the technopark. Skolkovo’s startup companies are applying for six- or nine-month residencies at the hackerspace with a specific plan for the development of a product that the companies can commercialize. Furthermore, Skolkovo management believes that this coworking space could make the development of new technologies more dynamic through fostering different companies working together in a shared space. However, they appear not to appreciate that an authentic hackerspace is a complex entity that must be rooted in an urban environment and is a social organization that is based on formal and informal communication between its members. “It will not be a place where you can hang out with your friends, drink beer, and assemble some hardware for fun, but it might serve to move forward the development of a special project,” Aleksey, the project manager at Skolkovo, explained.

Skolkovo’s efforts to create a collaborative atmosphere have also been hindered by odd design and administrative decisions. For instance, the administration building resembles a castle, which seems designed to hide and protect its inhabitants rather than invite visitors. All the doors at Skolkovo are equipped with magnetic locks, yet at the time of my research there the locks functioned only in the building hosting Skolkovo’s administration. Even Skolkovo members cannot enter the administrative floors with their keys. The foundation management even disconnected the doorbell, so that all meetings would have to be set up in advance by phone or email. Pavel explained that no casual visitor can enter the floors without a confirmation.
from Skolkovo’s administration. He claimed that Skolkovo has become like a ministry, with its own hierarchy and rigid segregation between the administration and residents. He believes that while it was envisioned as a facility for helping high-tech companies develop and commercialize their products, it gradually transformed itself into a self-sustaining, closed-off structure that exists by itself and for itself. Therefore, there is a certain perverse logic to its location in the middle of a construction site behind impassable forests at the far outskirts of Moscow.

CONCLUSION

While the US has experienced the rise of IT startups since the late 1990s at the intersection of the software, hardware, and internet industries, the Russian startup boom happened much later, in the late 2000s. Russian startup companies were seeking an environment for their development as well as cheap office space in which to place their teams. Most of them found this office space and a surrounding urban environment at coworking spaces and technoparks.

Coworking spaces have become a phenomenon that is strongly connected to the urban environment of Moscow as a global city with developing creative industries. Startup companies found independent coworking spaces particularly useful for the purpose of developing both new IT solutions and their own technologies. At the same time, the Russian state also began creating infrastructure to support startup companies such as technoparks and incubators—facilities that were mostly built at the edges of Moscow’s downtown, with budgets and target outcomes under the control of the government.

In this chapter, I have explored how urban spaces can act as an accelerator for the establishment of an environment that facilitates the growth of startup companies. I compared two types of spaces that were initiated for the development of startup companies: the Skolkovo “Innovative City,” which was created by the state, and the Moscow hackerspace Neuron. I examined how the urban environment facilitates cooperation in Neuron and development of its startup companies, whereas a lack of urban infrastructure and an underestimation of the importance of such infrastructure has impeded collaboration and hindered the successful development of Skolkovo’s residential companies. The everyday rhythms of these two areas are starkly different, and this contrast highlights the importance of accessible transport infrastruc-
ture, attractive landscaping, public spaces, and urban design in general, in facilitating the social interaction that is the lifeblood of IT development.

A downtown location with developed transport infrastructure and public spaces such as cafés, shops, and other sites for startup community meetings helps attract a wide range of new members and clients for startup companies at the hackerspace. Neuron chose the Khokhlovka creative cluster for precisely these reasons, seeing the benefits of the area’s “indie” culture and the social activities and public spaces that had facilitated the formation of this culture. Khokhlovka’s urban environment and location has helped support the values of Neuron’s members, which include self-organization, equality, horizontal relations within the community, and the exchange of skills and knowledge—values shared by many other organizations also working in Khokhlovka. Even though members of the Khokhlovka cluster work on their own separate projects, the shared ethos and common daily rhythm of work in the creative cluster reinforces the integration of the community into a creative and dynamic whole.

At the same time, the overall aesthetics of the creative cluster—street art, graffiti, and public spaces for developing art and tech projects—may not appeal to everyone. Thus, self-identification with the creative cluster and its surrounding environment is a prerequisite for becoming a member of the hackerspace. Those who do not feel the “indie spirit” of Khokhlovka usually do not stay at Neuron for long.

Urban infrastructure likewise plays an important role in the organization of Skolkovo’s community, albeit in a negative way. Skolkovo’s remote location at the edge of Moscow has proved to be one of the primary limitations to its development as an environment that can facilitate the work of its residents. In this way, had Skolkovo worked harder to integrate itself infrastructurally with central Moscow it might have shown more positive results in the development of its resident companies. Yet instead of this, Skolkovo became stuck between an idea of the value of a self-contained and self-sufficient environment promoting collaboration primarily among its internal organizations, and the reality that the Innovative City is a space that can only prosper through maintaining a porous border between the inside environment and the outside world. The dominance of this original idea of self-containment has resulted in a gated community where scholars, entrepreneurs, investors, and state officials could meet and even collaborate but which was almost closed off to outsiders. Moreover, in prioritizing the internal architectural complexity of the Innovative City’s buildings above its urban infrastructure,
such as a transport system and public spaces, Skolkovo’s planners effected an urban structure that has limited the time and space necessary for both informal communication between residents and contact and collaboration with groups outside the city.

This isolation has impacted Skolkovo’s residency and the shaping of its community. While Skoltech scholars value the large laboratories, generous supply of scientific equipment and materials, and access to natural sites, they admit that the lack of urban infrastructure limits Skoltech’s development. Because of this lack of infrastructure and connection to the outside world, large corporations and startup companies have mostly avoided moving to Skolkovo in recent years, leaving only smaller companies joining because of state administrative support (e.g., tax holidays, PR promotion, business consulting) and funding.

In this chapter I have shown that even though technologies such as the web have both reshaped the meaning of working space, distance, and location and changed the strategies of high-tech companies, infrastructure and the urban environment still influence the development of new technologies and startup companies. Coworking spaces, such as Neuron, rely on connections to transportation infrastructure, public spaces, and the cultural life these foster, which in turn become a central factor in the success of its members’ projects. By contrast, disregard for the urban context has produced problems for Skolkovo and its residents. The absence of developed urban infrastructure did not just place a physical restriction on Skolkovo’s residents’ communication, working processes, and collaboration with non-Skolkovo partners; it also limited the opportunity for the independent development of Skolkovo itself. The top-down organization of the Innovative City’s architecture and planning, and the establishment of residents’ businesses in the absence of an urban infrastructure, meant that major problems would worsen when state support of Skolkovo decreased. The financial crisis, changing international relations, and a shift from modernization projects to other state priorities have posed perhaps insurmountable difficulties for Skolkovo as it seeks to find resources for future development beyond state support.

NOTES

2. All interviews with IT workers were conducted in Russian and translated by the author.
3. Even though the state initiated Skolkovo as a specially created nonprofit, Skolkovo Foundation runs the project of the Innovative City development. The Skolkovo project is financed primarily from the Russian federal budget but the Russian oligarch Viktor Vekselberg is the head of the foundation and private funds support Skolkovo as well (Reyter and Golunov 2015).

4. All of Skolkovo’s residents are divided among five clusters: IT, Energy, Nuclear, Biomedical, and Space Technologies. The IT cluster has more residents than the others (sk 2015).

5. The MKAD was opened in 1961; it had four lanes of asphalt running 108.9 kilometers along Moscow’s city borders. In the 1980s Moscow started annexing territory outside the beltway but MKAD remains a symbolic border of Moscow.

6. In comparison, Zelenograd occupies 14 square miles; Novosibirsk, 194 square miles; and Silicon Valley’s territory is estimated at more than 1,500 square miles (Boyarskiy 2010).

7. “90 are Skolkovo participants. The remaining eight are representative offices of Russian and foreign partners of the project and the Centers of Collective Use” (sk 2015).

REFERENCES


