

Re-forming Architecture and Planning through Urban Design: St. Petersburg Case Study

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INTRODUCTION

Political changes in the former Soviet Union have had a concurrent effect upon the physical landscape of the cities of that country. Some cities have seen the invasion, for lack of a better way to describe conditions, of capitalism and the subsequent frenzy of speculative building activity in the form of new office buildings and the explosion of retail centers. Most of this building activity has been confined to Moscow which, because of differences in regional laws and statutes, has been the most aggressive place in seeking new development.

In contrast to the exploding development scene in Moscow, the czarist capital of St. Petersburg has seen relatively little new construction and a dearth of almost any building activity in its central district. This is due to four reasons: the complicated laws surrounding the acquisition of the various permits needed for construction; the high cost of capital and the lack of equity in the western sense;¹ strict laws of preservation and tenants rights that often preserve both the inside and the outside of an historical building; and, a conservative and cautious attitude on the part of city planning officials who recognize the need for re-development but are unwilling to cede control over the process. This last issue might be well understood as an attempt to preserve one of the world's most beautiful and unique cities and avoid some of the mistakes that accompany boom economies.

In spite of these apparent difficulties, the historical city offers a great opportunity to learn urban design and a unique opportunity to understand the relationship between politics and city building. With that possibility in mind, the University of Maryland School of Architecture offered a one month summer program to St. Petersburg in conjunction with the St. Petersburg State University of Architecture and Civil Engineering. The pedagogical intention of the program was to study the urban structure of the city from its origins to the present day, and to research and design an urban design project for an area of the city currently under consideration for re-development. The re-development study would also become a test case for new building in the historic heart of

the city. The program was also designed to appeal to upper-level graduate architecture and planning students and to somehow synthesize the traditional concerns of each of those disciplines: the physical form of the city in the case of the architects; and the problems and in a sense 'form' of the city from a social and economic view in the case of the planning students.²

HISTORY OF THE SITE

St. Petersburg was founded on the banks of the Neva River by Peter the Great in 1703 on one of the most unlikely of places, a low lying, swampy area, many miles north of the centers of Russian population. Peter established the city in order to counter the claims of the Swedish crown to the Gulf of Finland. It required a human effort of immense size just to make it habitable and Peter employed many different techniques, from royal decree to financial incentives, to make a city out of nothing. In a very real sense, Peter was also seeking to provide for Russia a physical and cultural connection to the west. His travels as a youth in Western Europe and particularly Holland convinced him of the superiority of western ways and the need for old Muscovy to modernize its customs and its ways of life.

The physical development of the city was inspired by several models. Its concentric rings of canals was modeled after the Dutch city of Amsterdam, well known to Peter through his travels. The city of canals was later overlaid with an eighteenth century monumental classical system of grand avenues and large squares and tridents by the architects of Catherine the Great and later rulers of Russia. The nearly three hundred years of development produced a city of immense scale and some of the largest and most impressive public plazas in the world.

A trident of streets focusing upon the old Admiralty gave structure to the development of the city. The eastern-most street of the original trident, Nevsky Prospect, extended from Admiralty Square to the old Alexander Nevsky Monastery and became the most important avenue in the city. It was lined with cultural institutions and important private ad-

addresses. The building of the Moscow train station at the midpoint of the street in the 1840's further weighted the city towards Nevsky as the center of commerce, culture and society.

If Amsterdam, and later Rome (or Versailles), provided the models for the urban structure of the city, the building fabric of the city evolved into a unique combination of western European housing types adapted to local circumstance. Initial development along the principle streets were urban town houses or palaces with rear gardens and narrow lots facing the street.

As the city developed into a great capital, the smaller palaces and town houses were replaced by a version of the nineteenth century bourgeois apartment building of five to eight stories, not unlike ones that might be found in other capitals such as Vienna, Stockholm or Paris. One difference, however, was that in the decades leading up to 1914, apartment buildings in St. Petersburg typically housed twice as many people as similar buildings in other European capitals.³

Because of the narrow town house lots, the type of apartment building that evolved was often one that had to be fit into a long and deep site. Building codes of the time permitted close adjacencies, and, as a consequence, many of the larger apartment buildings in the city of St. Petersburg show their shortest facade to the street, and extend through arches and courtyards deep into the block.⁴ Courtyards created by these large buildings on small lots are often quite narrow and dark. Entry to the buildings was most often obtained at the center of the arch connecting the street to the courtyard.

After the communist takeover in 1918 private property was abolished and, as a result, property lines were obliterated.⁵ Most of the apartment buildings in the historic center were converted into one-room apartments with shared cooking and bathing facilities. The center of city blocks, previously private spaces maintained by property owners, evolved into a no man's land of public passage but little public maintenance. Often the center of these blocks became the location of the area boiler plant accompanied by every manner of pipes and ducts running in every direction.

BLOCK 130 AT VOSSTANIYA SQUARE

Block 130 is unusually large, 300 meters by 450 meters, and is located at the mid-point of Nevsky Prospect near the Moscow train station in an area called Vosstaniya Square. Apartment buildings line most of the block with a large school on Vosstaniya Street and a small hospital facing Majakovskogo Street. There are several smaller schools located on the site and the center also contains a small park, leftover from earlier gardens that used to exist in that location.

In the earlier part of the nineteenth century, this area of the city was the location of aristocratic town houses with long rear yard gardens of the sort that might have been found in

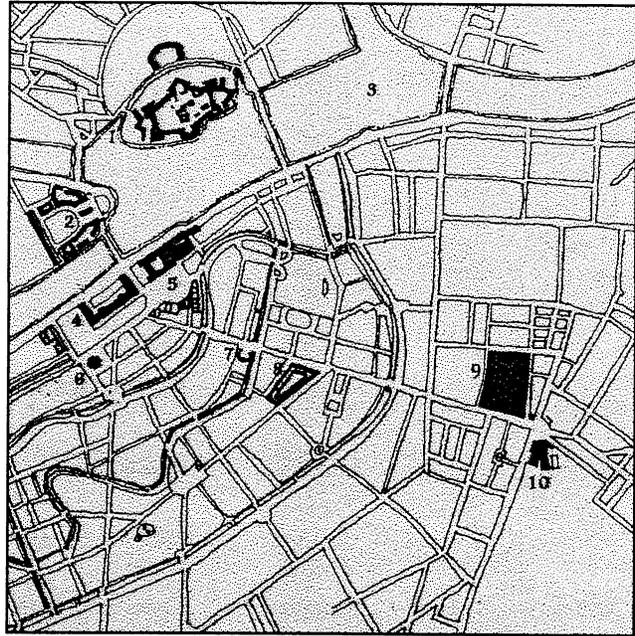


Fig. 1. General plan of St. Petersburg. Block 130 is labeled "9" on the plan.

London or Paris in the seventeenth or eighteenth centuries. On the side streets to Nevsky, several large houses were built on blocks adjacent to block 130. This area was also home to the "Italian Gardens," a formal garden owned by the crown and running northwest-southeast through several blocks and into the center of block 130 as well. Later developments saw a vestige of the open space of the gardens remain, while a large school and an orphans hospital were constructed on the streets running perpendicular to Nevsky Prospect.

CURRENT CONDITIONS

Nevsky Prospect is the main shopping street of historic St. Petersburg and most of the apartment buildings along the street contain ground level retail spaces. The changeover from the centralized economy of the communist era to a modified free market economy has brought new retail development along Nevsky Prospect. The Moscow rail station and adjacent Vosstaniya Metro Station have also made the area one of the highest priced retail districts in St. Petersburg. Available retail space is sold at a premium today and some shops extend into the second and third floors of the buildings they inhabit.

The need for expanded space for other commercial establishments along Nevsky Prospect, such as movie theaters and restaurants, has inspired the development of a rather unique and unusual use type. In several locations along Nevsky, an arch leads to an inner courtyard where can be found either a sizable restaurant or a movie house, usually constructed in the 1920's. With the disappearance of property boundaries, transgressing the traditionally 'private' realm of the courtyard has become, at least in St. Petersburg, a habitual act of

public life. Frequently, these courtyards serve as the location of a scale of retail not easily accommodated in the small shops along the street. Large restaurants, beer gardens and theaters tend to be located in these areas.

Buildings in block 130 range from extremely bad condition and near collapse, to apartment buildings that are mostly inhabited. A few parcels retain just the facades of the buildings and although some renovation was begun, very little was completed. Many of the buildings that are inhabited retain the group living arrangements forced upon the residents of the center city by the Soviets beginning in the 1920's. Today, courtyards in the center of the block are becoming parking places for automobiles, although most of the residents do not own cars. Pedestrian access is generally open to all parts of the interior of the block, and this is particularly important as several of the schools are located in areas not directly accessible from adjacent streets. The largest courtyard off Nevsky Prospect is the location of a well-known movie theater, similar to several others along the street.

THE PROBLEM

One of the first tasks in any design investigation is to ask the right questions about the nature of the problem. Problems and questions posed by the conditions of the place, both physical and historical were considerable. For example, although we recognized that reconstruction and re-development will occur, many questions remained about the character of re-development. For example, is new construction appropriate, and, if so, where should it be located? How should private property re-emerge, as total land ownership or in a combined system of building ownership with ground rents? What projects are important for the city to do first and how could strategies for block 130 help to address those issues? And, unlike re-development in the United States, what to do about residents already living on the site and by law to be compensated if they were to be relocated?

Aside from those issues, we also faced the challenge we posed to ourselves, which was to develop a curriculum that would benefit from the diverse (yet related) interests and expertise of planning and architecture, and produce a more informed synthesis and decision making process for both.

From the architecture students, one might anticipate an adept understanding of the physical properties of the area, identification of formal solutions to those issues, and an ability to represent those relationships graphically. From the planners, one might anticipate an examination of the existing social problems, considerations of re-development options, and quantifiable facts about the wealth of residents in the area and potential value of the land. Together, it was hoped, we could address the unique social relations that had evolved over time, and look at how current market reforms might make some areas of the block more attractive to re-develop than others. From that, we could propose a development strategy that would preserve the best aspects of the block

both architecturally and socially, retain the possibility of a mixed-use neighborhood, and offer possibilities attractive to an emerging real estate market.

All of these questions were also compounded by complicated preservation laws, some of which preserve both the exterior and the interior of any building, and the current resident relocation law which states that the costs of any re-development which involves the relocation of existing residents must be borne by the developer.

In the course of the study, several specific questions emerged. First, was it possible to introduce new or renovation projects that would be attractive for development without having to relocate residents, or could be used to house current residents while old buildings were either rehabilitated or converted to another use? Second, since it seemed desirable to offer to long-time residents the opportunity of remaining in their neighborhood, where could new housing be located on site such that larger buildings along Nevsky Prospect could be converted to a higher and better use? Third, in looking at the city today, what sorts of uses are lacking in the historic center, and could proposals for Block 130 address this in some way? Finally, how could patterns of use predicated upon universal access and communal property be altered such that necessary access could

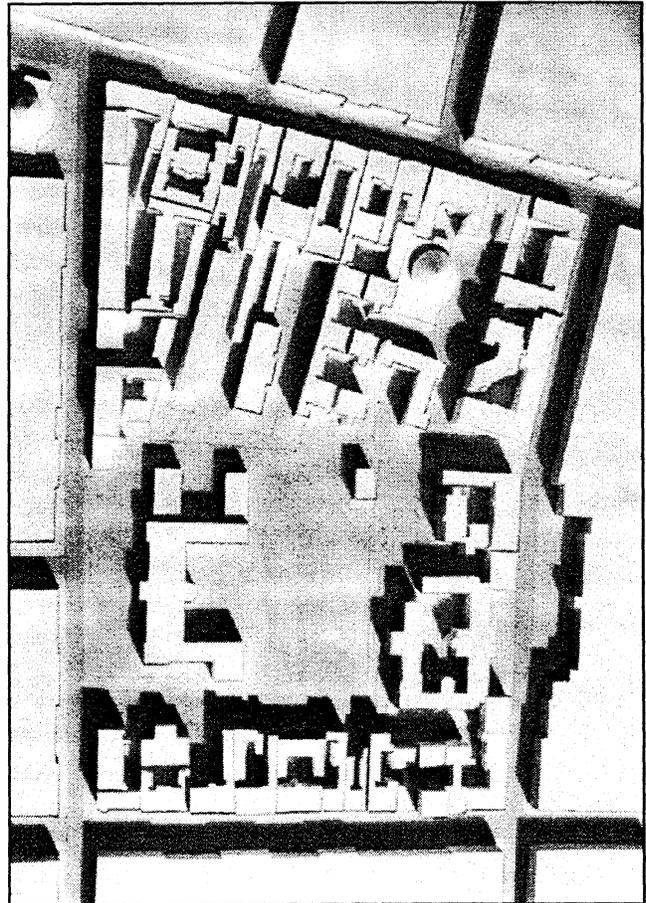


Fig. 2. Model of existing conditions on Block 130.

be maintained, while the need for increased security and privacy that comes with property ownership could be enhanced?

THE SOLUTION

The architecture students began with an urban design analysis of the block, identifying physical features such as edges, views, spatial sequences, building types, open vs. enclosed spaces, and existing uses and program, etc.... They then began to speculate about solutions addressing what they perceived to be some of the problems with the block, and examined alternative design scenarios to resolve those issues.

While the architects were pursuing their agenda, the planning students began to inventory the block in terms of vacant or occupied buildings, and model the kinds of market conditions that would be necessary to induce new construction or re-development of existing buildings. They also spent some time at the offices of the city planning department learning about plans for the city and what kinds of development the city saw as key to future success. Perhaps most importantly, they examined the block in terms of the value of buildings in relation to their proximity to Nevsky Pros-

pect, whether the buildings were vacant or occupied, and how long would be needed to renovate the various parcels involved in the study.

Initially, the groups worked separately, only occasionally sharing information and observations. In a sense, the planners were constructing hypothetical futures based upon economic assumptions, and the architects were constructing hypothetical futures based upon urban design criteria. Each group was operating in the realm of "what if...?" recognizing all the while that assumptions could be modified and changed as the group gained greater insight into the problems posed by the city and the site.

At one point in the process, it became clear that the large block could absorb both new construction and renovation. New construction could provide much needed "efficient" office space in the center city as well as housing to replace existing sub-standard housing, thereby relieving, to some degree, over-crowding in the city center. Renovation could preserve the rare historical architecture of St. Petersburg, while providing much needed office space as well as hotel space, also lacking in the historic center.

In the final synthesis, the planners proposed which buildings should be designated for speculative re-development along Nevsky Prospect. They identified properties that, if refurbished, could yield significant capital return with a minimum of resident relocation. They also formulated an outline program identifying the need for new hotel space in the city and investment scenarios that would permit the project to go forward.

Armed with this information, the architects and planners, as a group, began to try to match development scenarios proposed by the planners to the physical conditions of the site. In addition to identifying possible locations for the construction of new schools, the team identified which properties could first be sold to developers for commercial office development. And, in order to make that kind of development possible, the team also identified sites on the block for new residential construction into which residents

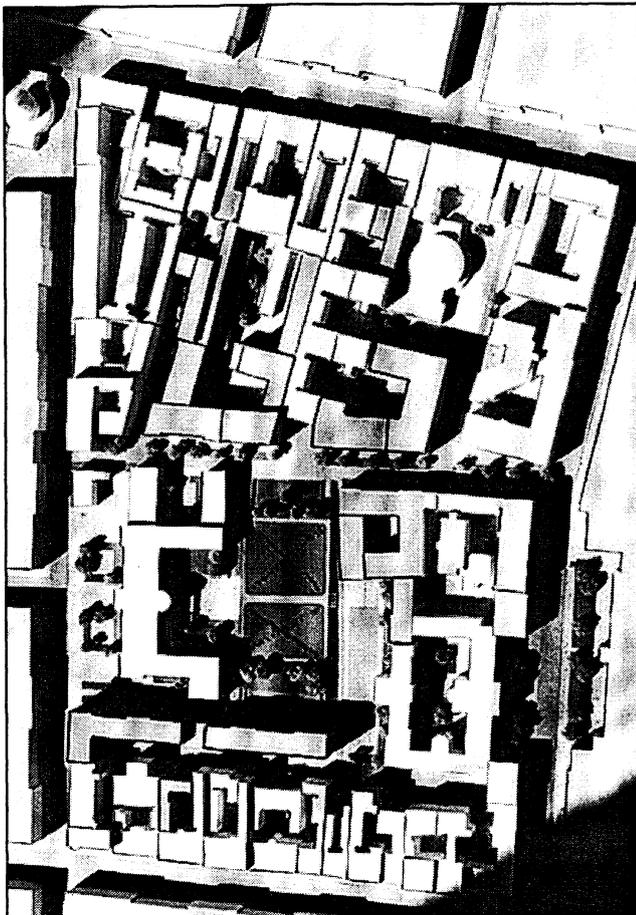


Fig. 3. Model of proposed development of Block 130.

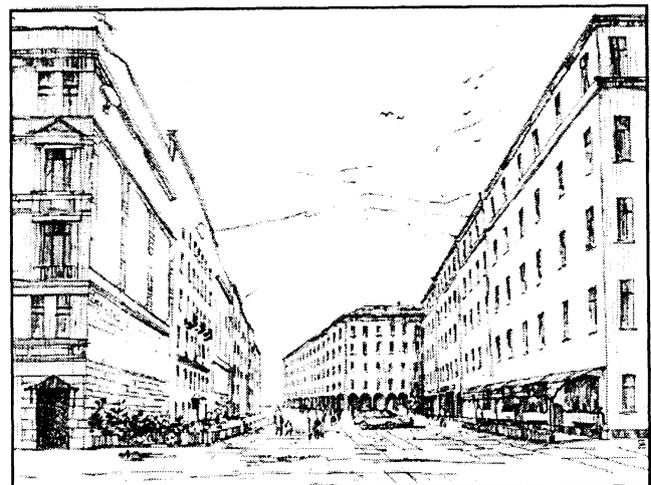


Fig. 4. View of proposed new Center Street

of buildings to be renovated could be moved. Specific sites were also identified for a new hotel.

Perhaps the most controversial part of the proposal was the idea of introducing a new cross street through the center of the block running parallel to Nevsky Prospect. This street would serve as a new front for proposed office buildings to be built in areas currently occupied by dilapidated buildings of the Soviet era, and also provide a very important new scale of neighborhood street with ease of access to existing schools and residential buildings on the interior of the block.

The open space in the center of the block was preserved as public open space and could eventually become the location of a proposed underground parking facility. Although housing automobiles in the center of the city is currently not an issue, increased private wealth would in all likelihood mean an increase in the numbers of automobiles in the city. A new garage could offer an amenity not often found in the center of the city along with places for street parking on the new cross street.

CONCLUSIONS

Aside from current problems of an entangled and complex bureaucracy and market conditions that make it highly unattractive for development, there are significant differences between western models of development as practiced in the United States and those of the emerging Russian market that should be pointed out. First, the re-introduction of private property gives the state an enormous resource at its disposal in the form of real estate. Given the right conditions for development, the state could reap substantial monetary benefits by selling off land and property to developers. Questions remain, however, about the extent of control the state should retain over property. Current thought seems to be headed in terms of long-term leases instead of outright selling of land and buildings. This makes investment money difficult to come by, as banks typically measure value as an asset requiring land ownership and development rights.

Second, because the usual tangle of individual property ownership that often thwarts development in the United States does not exist (at this time), planning could become a much more powerful tool to reshape the city and preserve significant historic properties. This too has its complications. Current historic designations in St. Petersburg are generally much stricter than what is found in the United States with many statues protecting both the interior and the exterior of many buildings. While this has served to preserve much of the architectural heritage at stake, certainly a balance between current practice and future flexibility would inspire development interest.

Third, the city has the opportunity to create and maintain a healthy balance of residential, commercial and retail activity in the historic center without suffering from the

zoned imbalance of one activity over another, as so often is the case in the United States. However, this balance is threatened everyday as the scarcity of available space increases, pressure to make more properties available to whatever interest is bringing the greatest monetary return is evermore intense. This is further complicated by a case-by-case permit process used by the city planning office in which every permit for re-development is reviewed as a unique and isolated project.

Finally, while positive economic conditions for the rebuilding of St. Petersburg may require some time to develop, it is important to recognize the inter-relationship between the form of a living city and the social and economic conditions which cause it to become so. Simply because conditions are not ripe at the current time does not mean that effective planning cannot in some way anticipate what those conditions may dictate. And, while the real social and economic conditions that evolve may be different from what has been modeled here, any proposal such as this can shed light on the possible, if not the actual.

NOTES

- ¹ Obtaining loans from Russian banks is a costly and tedious process. During the summer of 1996 construction loans from Russian banks ranged from 30% to 50% interest. Also, foreign loans are difficult to obtain for projects in St. Petersburg because only land leases are available. Lacking such a significant asset makes financing in the traditional western sense very difficult. The developers who are proceeding in St. Petersburg generally have foreign equity partners and are able to wait out the lengthy approvals process.
- ² The intention of the program was also to provide a vehicle for closer collaboration between the architecture and planning units of the School of Architecture. The Urban Studies and Planning program was relocated to the School of Architecture at Maryland in 1991 and since then few collaborative efforts have been undertaken. Obviously, this kind of collaboration might be a way for the curriculum of both programs to find areas of mutual interest.
- ³ Blair A. Ruble, *Leningrad: Shaping a Soviet City* (Los Angeles: University of California Press, 1990) 38.
- ⁴ A similar kind of tenement-style apartment building developed around the same time in Helsinki, Stockholm and Berlin. Earliest versions of these buildings lacked heat and electricity and often did not have running water. By 1895 building codes in many of these cities had been modified somewhat with setbacks for wings extending into the center of the block, although light and the circulation of air remained a problem. See, Juha Ilonen, *The Other Helsinki: The reverse face of architecture in the city* (Helsinki: The Finnish Building Center, 1992)
- ⁵ The obliteration of property lines in the city has created some problems for today. As the city government prepares to convert properties to private ownership, it is often discovered that the lack of property lines has made enforcement of fire codes very tedious and difficult. During the Soviet period these codes were often ignored and frequently modifications were made to buildings that obliterated fire separations. Retrofitting buildings to bring them up to code is a very serious concern.