

## Historical Buildings Integration Into a Modern Industrial Urban Environment of Perm

Anastasia Kuznetsova, Yuliya Bushmakova

(Anastasia Kuznetsova, Master Degree, Perm National Research Polytechnic University, 29 Komsomolsky Av., Perm, Russia, nastyakyz@mail.ru)

(Yuliya Bushmakova, Master Degree, Perm National Research Polytechnic University, 29 Komsomolsky Av., Perm, Russia, bushmakova@yandex.ru)

### 1 ABSTRACT

Perm is a 300 years old modern industrial city. Architectural heritage was formed by several “architectural layers”, each of them has its own period and place in the history of the city. As a whole, architectural styles of Perm have similarities with such styles in Ekaterinburg, Chelyabinsk and other Ural cities. Influence of activity of architects of 18th and 19th centuries and Soviet principles of planning of territories and designing of houses is traced in historical parts of the city.

For preservation of historical heritage of Perm, protection zones are defined in the rules of land usage and in the general plan of Perm. Despite this the shape of all of historical buildings is changing because of expansion of the city, new economic and political conditions, new needs and requirements.

In our research following morphotypes are being observed: houses of 19th century (two floors: 1st – brick materials, 2nd – wood materials), merchant houses (two floors, brick materials), Perm socialistic town, buildings of 1980s and 1990s and new constructions.

To define negative factors influencing historical heritage and to set protection measures for each of morphotypes it's necessary to analyze its existing position from the point of view of primary ideas of the projects. The analyses are in several scales: from large scale describing status of historical buildings in the city or in the district, to smaller scale defining condition of a certain building and its external changing. Moreover, processes are being analyzed which are occurring on the territory around these historical buildings (inside and outside the blocks).

The result of this architectural research is setting directives for the development of regulating documents dealing with certain historical buildings and morphotypes for preservation of unities of ensembles and interrelation with surrounding buildings. The practical application of this research is an establishment of new parameters for each type of historical buildings in urban codes.

### 2 HISTORICAL AND ARCHITECTURAL HERITAGE OF PERM

Perm is a city on the border between of Europe and Asia with one million inhabitants. In the past it was an industrial city but now Perm is developing as a cultural and scientific center of the Perm Krai and Western Urals.

The master plan of the city was accepted in 2010. Besides, there is a strategic master plan of Perm describing the main directions of the city development elaborated in 2011.

In connection with increasing of new construction and new strategy of the city consolidation of central parts of the city there is an urgent question about preservation of historical parts of the city and preservation of integrity of architectural and planning ensembles which form historical heritage of the city.

Urban environment cannot be absolutely identical and homogeneous. The city is concentration of different styles and times. You can often see variety of buildings “for any taste”. Therefore urban planners face a question: “How is it possible to combine this diversity and uniqueness of different morphotypes of the city to get one city fabric preserving identity? Should we understand each building or each group forming city fabric?” Only the main architectural dominants usually are preserved, but ordinary buildings are disappearing. It is important because the majority ordinary buildings are forming shape of the city and “sense of the place”.

### 3 PRINCIPLES OF THE ANALYSIS

Establishing of a strategy of historical heritage preservation is an important issue for the city. Because the heritage is its uniqueness and identity, in the long run it is the history of the city.

The protection zones are set up in the rules of land use of Perm. City-planning activity mode and measures of preservation are defined for each of these zones. But the particular factors which are worsening the life of architectural heritage are not revealed and not described in urban codes.

The work for establishing of the strategy of historical heritage preservation was made by developing strategic master-plan of Perm. In the part “Heritage Strategy” the main ensembles of the central parts of the city are revealed. The results of this work are the main directions within the limits of which the researches and works for preservation of historical heritage will be made (strategic master plan of Perm).

“Within borders of this work there were selected six key ensembles which are possessing an obvious historical value for Perm. The key ensembles are supplemented with individual zones: here we can see groups of buildings estimated as important for architectural and town-planning activity of Perm.”

If we talk about preservation of historical buildings we should pay attention to big meaning have such factors as aesthetic parameters and the safety of original appearance. Not only buildings form the ensemble, but it is formed also by the environment around these buildings and buildings situated nearby. All visible facades of the street make its shape, but high, length and decor of buildings make the rhythm of the street. The reflection of ideas of one building to the another and vice versa is “rhyme” of the street creating its integrity.

Our research work is connected with revealing the links between historical buildings and new buildings; the list of the problems connected with integration new buildings into historical center’s environment; preservation integrity of historically important buildings within dynamic city environment.

For researching the most widespread morphotypes of Perm are defined: houses of 19th century (two floors: 1st – bricks materials, 2nd – wood materials), merchant houses (two floor, brick materials), Perm socialistic town, buildings of 1980s and 1990s and new constructions.

The plans of each typology are compiled for defining of morphotypes placement. The research aimed at historical parts of Perm. The prevailing buildings which are forming ensembles and the shape of the street are selected for each part. The typical blocks of each typology are described from the point of view of the following parameters:

- (1) analysis of their placement in the district/city;
- (2) analysis of their planning structure and placement in the quarter;
- (3) analysis of the architectural integrity, facades, physical wear;
- (4) analysis of the environment around the block.

The analysis has several stages for getting the most general and complete idea of these buildings. The first stage is to identify a common list of problems. The next stage is a detailed reviewing of each of the historic buildings and establishing relationships with the surrounding buildings and environment.

#### **4 THE FIRST STAGE OF THE ANALYSIS. EXISTING SITUATION AND PROBLEMS OF CENTRAL PART OF PERM**

The blocks of historical center of Perm are formed by buildings of XIX century in style of classicism and a modernist style with the features caused by character of applied materials and local traditions. Usually it is brick or wood buildings which have two or three floors. For this moment in the city’s fabric there are pieces of such historical buildings, but they are replaced by new buildings which are appearing suddenly without a functional design and planning.

One of the main features of this type of buildings is a lot of decorative elements on the facades. The main colours of facades are yellow, green or white. The facades have a certain rhythm which composes a certain rhythm of the whole street. (Fig.1)



Fig.1 Roofs elements. The merchant houses (XIX century).

The quarters with such buildings are closed blocks. Administrative offices and commercial activity are situated on the street-side, but the accesses for people living in these buildings are inside of the quarter.

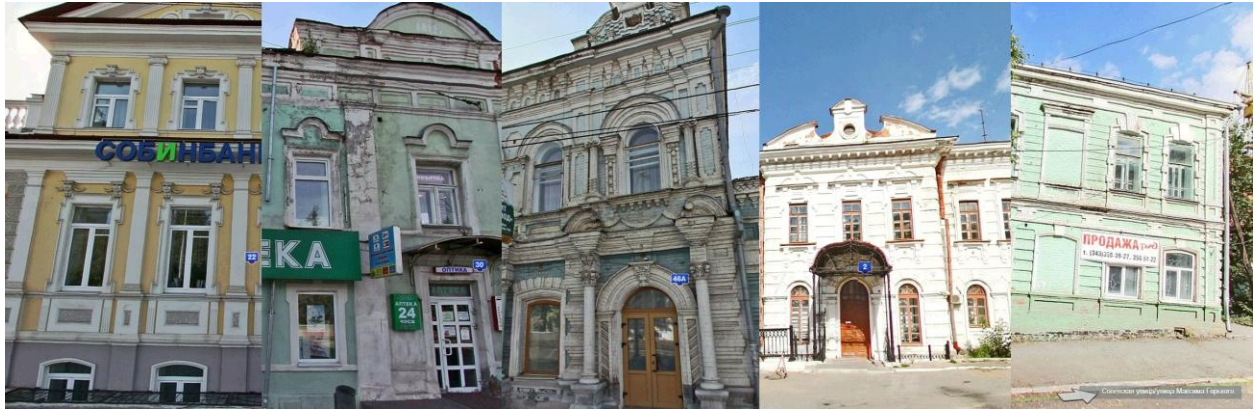


Fig.2 Fragments of facades of historical part of Perm

The main feature of central streets is using of the first floors for commercial activities. The different shops and service enterprises on the first floors help to enliven the streets.

One of principles of new urbanism is natural surveillance. It means that spaces with social activities are more comfortable. But for historical blocks such activities was usually not provided. Therefore we should observe shops and cafes appeared on the first floors not only as functional features but also as components forming an aesthetic view of the streets. Moreover, we should think wheather each certain building can receive additional load (additional functions) or not. Probably, these buildings are needed to exempt from unnecessary functions and unusual arcitectoral detales.

Sibirskaya and Kirov streets are the main streets of Perm. The visual analysis of facades of these streets revealed that additional functions seem to be a great disadvantage and harm for historical buildings.

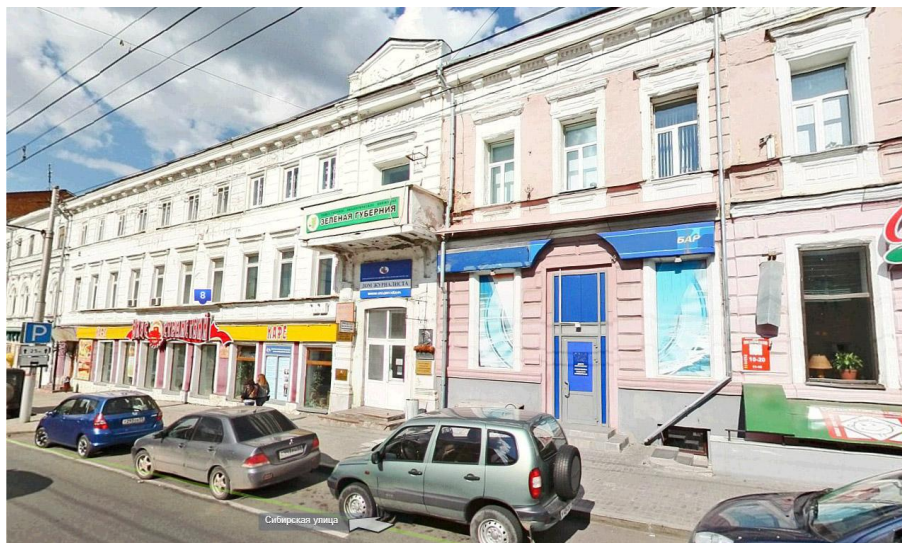


Fig.3 Façade of building, Sibirskay street.

In particular, bad solutions of entrances groups, ladders and accesses to buildings broke the red line of the street. Moreover, it is bad for appearance of facades, it makes too strong differences of color palettes (different with original colours). (Fig.3,4)



Fig.4 Façade of building, Kirov street.

In the survey of blocks of buildings of the XIX century one more problem of historical part of Perm was defined.

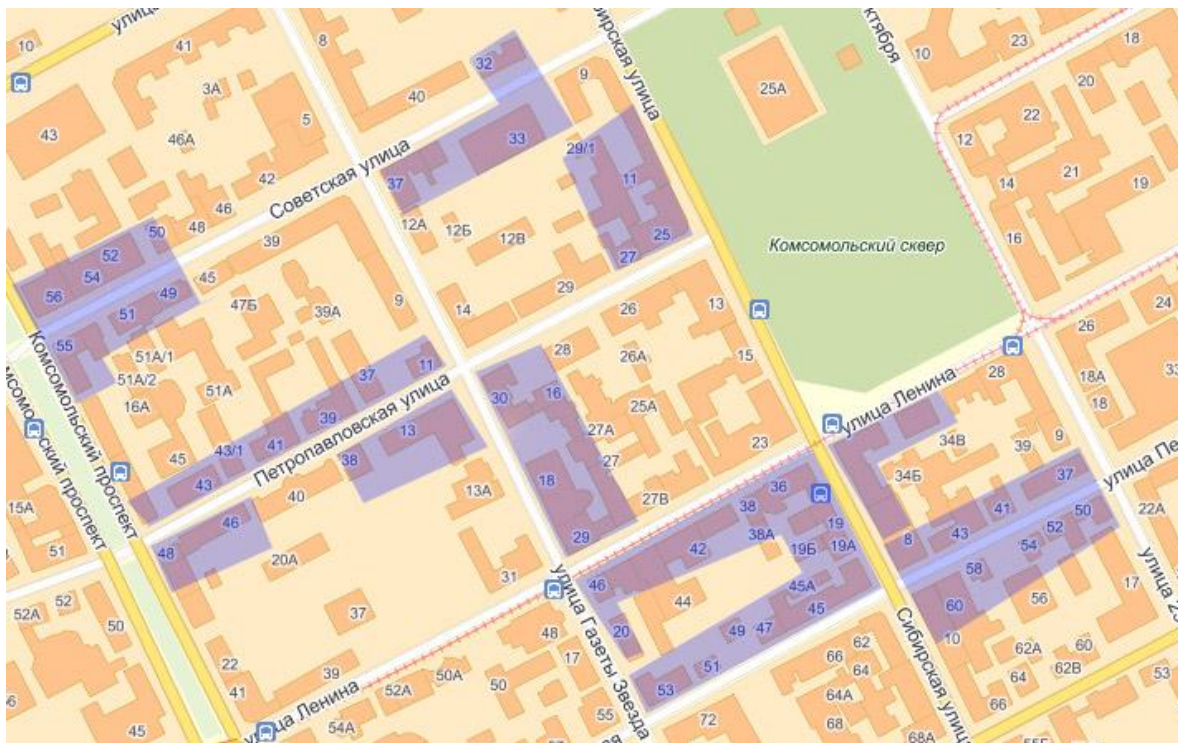


Fig.5 The revealing of blocks of historical buildings. The central part of Perm (2Gis map).

Blocks formed by historical buildings are situated on the borders of quarters. But inside parts of these blocks are filled by new buildings (usually in other styles), which are higher than historical buildings on the borders. New constructions interrupt complete perception of facades of architectural heritage.

Nowadays most of blocks of historical buildings have only corner buildings. The new constructions, which are the similar historical buildings, are built in blocks for restoration and reconstruction of historical appearance of the street. It helps to save integrity of composition or ensemble, but in most cases architects design new projects without links to environment of historical blocks, therefore urban environment is disjunct.

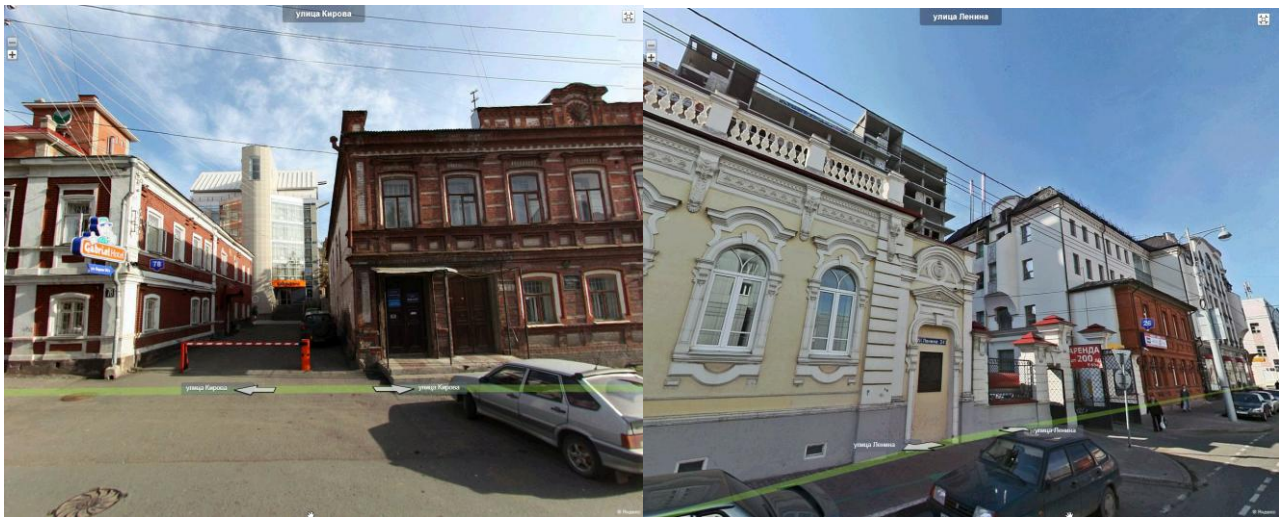


Fig.6 Break of the lines of facades by buildings inside block.

Obviously there is a necessity to develop the list of valued elements of historical environment, which are typical for certain morphotypes, and we need to find new tools for preservation of the shape of historical blocks. Moreover, we should pay attention to value of physical wear, the materials of constructions and possibilities for functional adaptation.

## 5 CONCLUSIONS

For this moment in the Russian Federation there are instruments for preservation of architectural heritage. For example, architects design sweep of the streets for understanding of general shape of the street or block; maps of typologies and conditions of buildings for understanding value of heritage and necessity of restoration. But laws which regulate fulfillment of such analyses cannot work effectively because they doesn't have specific indications, limitations, and tools which could be free and useful for all who are interested in them.

The local normative documents need in rethinking about functional load of historical parts of the city. It needs to more distinctly define the list of types of value elements of historical environment and fix this typology with the help of photomaterials and detailed descriptions.

Sociological polls can help to determine restrictions for usage of historical heritage. It can give understanding of what is really important for citizens: which places are important and significant and what they want to preserve.

Thus, the existing register of historical buildings of Perm needs to be supplemented to be improved. It needs to add descriptions not only of main buildings and architectural dominants, those of ordinary buildings and blocks of historical parts of the city as well. It has to be an open register because it can be an important resource with information about historical quarters for all who are interested in it.

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