

Iryna Pohranychna¹, Maksym Yasynskyi²

METHODOLOGICAL ASPECTS OF THE SCIENTIFIC AND DESIGN PROCESS OF PRESERVING THE HISTORICAL CITY

¹ *PhD, Assistant of the Department of Architecture and Conservation*

Lviv Polytechnic National University, Lviv

e-mail: iryna.i.pohranychna@lpnu.ua

orcid: 0000 0002 4164 6110

² *PhD, Senior Lecturer of the Department of Architecture and Conservation*

Lviv Polytechnic National University, Lviv

e-mail: maksym.r.yasynskyi@lpnu.ua

orcid: 0000-0002-8285-4522

Received: 15.07.2021 / Revised: 02.08.2021 / Accepted: 31.08.2021

© *Pohranychna I. I., Yasinsky M. R., 2021*

<https://doi.org/10.23939/as2021.02.216>

Astract. The article highlights the methodological aspects of the architect's work in the historical environment, reveals current trends and processes of transformation of the architectural and urban planning structure of historical cities. The main approaches to their reproduction and transformation are considered and analyzed. The concept of the central part of the historical city and the method of localization of its borders are revealed. The main requirements for the reproduction and development of buildings in the central part of historical cities are highlighted. The article describes the architectural and urban planning principles of reproduction and development of block development, which are based on the continuous development of the central part of the city, and allow the use of modern architectural and construction innovations in the structural, engineering and architectural solution of development. The article describes the ways of developing the planning structure of a historically formed centre, approaches to its transformation, and substantiates the advantages of developing a comprehensive project for the regeneration of the central part of the historical city, which should be based on the results of research conducted during the development of a historical and architectural reference plan. The program approach to the reconstruction of certain sectors of historical development is revealed.

Key words: historical city, central part of the historical city, city centre, regeneration, reconstruction, reproduction, development of the city.

Problem statement

The current state of the historical cities of Ukraine is characterized by the presence of problems related to the preservation of historical and cultural heritage, one of which is the need to preserve and reproduce the composition of historical parts of cities and ensure the uniqueness and authenticity of the historically formed

environment. This is due to the current state of theory and practice of domestic architecture, where the study and generalization of experience took place somewhat fragmentally, the architectural and aesthetic aspects of reconstruction were not fully taken into account, which often led to the loss of a valuable historical environment.

At the current stage of development, cities are being transformed without preserving their hereditary structure and losing the traditions of their original development. Cities are adapting to rapid investment construction. The processes taking place in the urban environment have not only increased their speed and scale but also largely changed their nature. The formation of a city with a clearly defined relationship between its elements went beyond urban planning analysis with a meaningful organization of the city. Mass construction of multifunctional complexes is a sign of urban planning and economic policy in recent years. These complexes are linked to the main highways of the city and significantly load them. Therefore, the architectural and urban planning problem lies in the fact that in the conditions of modern urban development and market economy, there is a significant contradiction between architectural objects that are discretely built and transport communications, the integrity of the urban environment is lost and the functional processes of the city become more complicated.

Analysis of recent research and publications

Basic scientific research on this subject belongs to Bevz M. (2004), Vechersky L. (2003). Also there are a great amount of practical results in a reconstruction and regeneration of historical cities of the Poland (Jamiołkowska & Kurzątkowski, 1986; Kalinowski, 1986; Krzyżanowski, 1986; Kornecki, 1986; Krupiński, 1986; Latour & Orlińska, 1986; Przyłęcki, 1986; Zarębska, 1986; Żurawski, 1986.) where summarized basic work on urban revitalization of Polish cities. These works consider the basic issue of regeneration of the downtown historical town-planning structures, but some aspects and methods of identifying and delineating the most valuable part of the city need further coverage.

Purpose of the study

Analyze the processes of transformation in historical cities and reveal the methodological aspects and foundations of the scientific and design process of preserving the historical city in the course of its transformation and adaptation to modern conditions.

Results and discussion

According to the legislation of Ukraine, a historical locality is a city, settlement or village that has preserved in whole or in part its historical area with cultural heritage objects and related planning and form of development, typical for certain cultures or periods of development and is included in the list of historical localities of Ukraine. Nowadays, 403 localities have been included in the list of historical localities in Ukraine. According to the “procedure for recognizing a locality as historical”, approved by Resolution No. 909 of the Cabinet of Ministers of Ukraine on July 3, 2006, a city, settlement and village can be recognized as historical and included in the list if it meets at least two of the following criteria:

- 1) the presence of historical, architectural, landscape and garden-park objects of cultural heritage that have a city-forming significance;
- 2) planning in accordance with past historical epochs (before the beginning of the twentieth century);
- 3) preservation of the main compositional centres and compositional axes of populated areas;
- 4) the presence of ordinary historical buildings.

By modern definition, historical cities are related to the protection of historical and cultural heritage, because they embody the values inherent in traditional urban areas of communities and have preserved over the centuries a unique face, traditional planning structure, appropriate cultural, historical and architectural environment.

The threat to the identity of historical cities has always been the interference of new buildings in the historical environment. Nowadays, there is a danger that the growing versatility of construction methods and architectural forms can lead to the creation of a monotonous architectural environment. The preservation of the traditional historical environment and its diversity, in this case, is a significant contribution to the protection of cultural and social values of the country and will contribute to the enrichment of the world cultural heritage in the field of architectural and urban planning.

The art of reconstruction of monuments of urban planning and architecture, first of all, should be the art of harmonious development of an ensemble, complex, or city, based on objective patterns of interaction of the art of architecture with space and time – the main spheres of life.

According to M. G. Barkhin: “An ensemble is not just a group of buildings... A mandatory participant in an architectural ensemble is the space organized by these buildings, organized according to a certain idea, in accordance with a certain idea”.

Examples of reconstruction of historical cities show that for the true preservation of their architectural identity, urban planning conservation is necessary for its parts, primarily spatial relations. In some cases, urban planning restoration or revitalization is necessary (Warsaw (Biegański, Kalinowski, 1986), Gdansk (Krzyżanowski, 1986), Sandomierz (Kalinowski, 1986), Olesnica (Przyłęcki, 1986), Tarnow (Krupiński, 1986) in Poland). Also one of the most successful examples of the most accurate definition of borders for “clearing” the Old City with the simultaneous disclosure of true historical and artistic values from later layers is a reconstruction of the medieval core of Tbilisi.

Another aspect of this problem is that in the expanses of the city, all the architectural and artistic connections of buildings are realized when comparing their scale, proportional construction, silhouette, plastic, and colour. In the historical and architectural heritage, these relationships are no less valuable than the expanses and architectural monuments of the city themselves. Meanwhile, the destruction of historical buildings is not necessary to break these ties. These relationships can be deformed by the unjustified intervention of new volumes that are alien to the expanses of the historical city with their hypertrophied size, different scale, lack of plastic and colour. An example is the building of a book depository Kharkiv Scientific Library named after Korolenko, the primitive bulky silhouette of which distorted the refined historical ensemble of the city centre and the UniCredit Bank building on Mickiewicz Square in Lviv, which, despite its acceptable height, destroyed the environment of the square due to its three-dimensional composition that is not typical for historical buildings.

The analysis of architectural and urban planning practices of recent decades shows that the invasion of the historically formed environment of the Centers of historical cities often generates conflict situations. Numerous reconstructive measures lead to radical changes in the traditional appearance of the urban environment, which has developed over the centuries. Modern trends that occur in cities identified in the course of the study processes of transformation of the architectural and urban planning structure of historical cities, taking place in recent years, by the nature of transformations can be divided into 5 main groups: 1) adaptation of the lower floors of existing residential buildings for various functions; 2) an increase in the number of unauthorized reconstructions of historical houses; 3) spontaneous adaptation of street spaces and free territories of blocks for parking cars; 4) free from development territories of blocks, gradually built up, adapt to parking or recreational areas; 5) new construction is implemented mainly without observing the historical parcel and old boundaries of the quarter buildings of its height and dimensions. All these processes occur to some extent in each of the cities studied and are necessary for the development of the city to a certain extent. As a result, these processes lead to a negative change in the silhouette of the city, historical dominants are lost, such as town halls or sacred structures, the planning structure of neighbourhoods changes, new disharmonious buildings appear within the historical centre (multi-storey or dimensional) and the contour of the centre is lost (Goncharenko, 2005). Therefore, it can be argued that the main trends in the transformation of the architectural and urban planning structure and modern use of the territory of historical centres of historical cities, according to the identified transformation processes, are: 1) increasing the

functional content of blocks and their development, 2) compaction of buildings, 3) improving the living conditions of permanent residents of these blocks.

At the same time, it should be noted that it is impossible to completely prevent the transformation of the historical urban planning environment. After all, an actively developing city has never been a complete system, permanently stopped in its movement. There are several spatial systems in it, it undergoes constant changes and is always faced with a dilemma: old or new; what is born or what goes away, leave or destroy.

Radical changes in the traditional historical environment of cities were caused by the reconstruction of European capitals carried out in the XVII–XIX centuries, and the implementation of redevelopment projects for cities of the Russian Empire in the XVIII century. Therefore, the goal of the reconstruction of the historical urban environment should be to maximize the preservation of the most valuable elements and ensembles and their visual, compositional, and functional interaction.

The total stylization of new buildings under the historical models that make up the characteristic development of the historical urban environment does not solve this problem either. After all, in this case, the imagination about the preserved environment is distorted, and the real artistic heritage left to us by past generations is replaced with modern “dummies”.

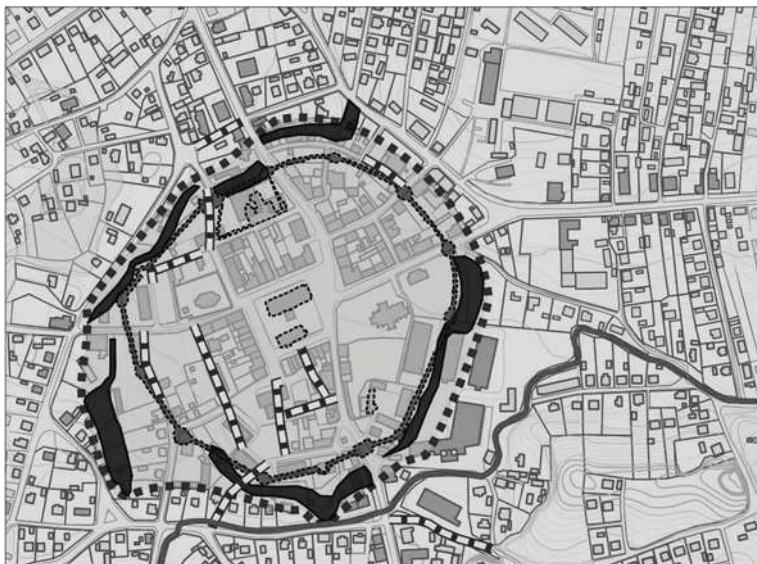
According to the Vienna memorandum signed by UNESCO, ICOMOS and ICCROM dated May 20, 2005, the following requirement applies to historical cities: “based on the basic definition, urban planning, modern architecture and the preservation of the historical urban landscape should avoid any form of pseudo-historical design, since it denies both history and modernity. One historical view should not exclude others, because history should remain readable, and the continuity of cultural development is a key goal of qualitative interventions”.

Among the examples of regeneration and revalorization of the centres of historical cities, several main approaches are used to recreate the development and historical environment: 1) conservation and museumification of the central part of the city with restoration reproduction of its development and its adaptation to modern requirements (examples can be – Warsaw (Biegański, Kalinowski, 1986), Lyantskorona (Kornecki, 1986), Kazimierz-Dolny (Żurawski, 1986); 2) restoration and adaptation of preserved development in combination with the construction of completely new houses on the site of lost ones, taking into account the specifics of the historical environment (Lublin (Jamiołkowska, Kurzątkowski, 1986), Kalisz (Zarębska., 1986), Sandomir (Kalinowski., 1986), 3) construction of new buildings instead of restoring historical buildings, often does not take into account the architectural and high-rise features of the historical environment, but only urban planning and planning characteristics (Szczecin (Latour, Orlńska., 1986). Accordingly, these approaches are applied to city territories of different values.

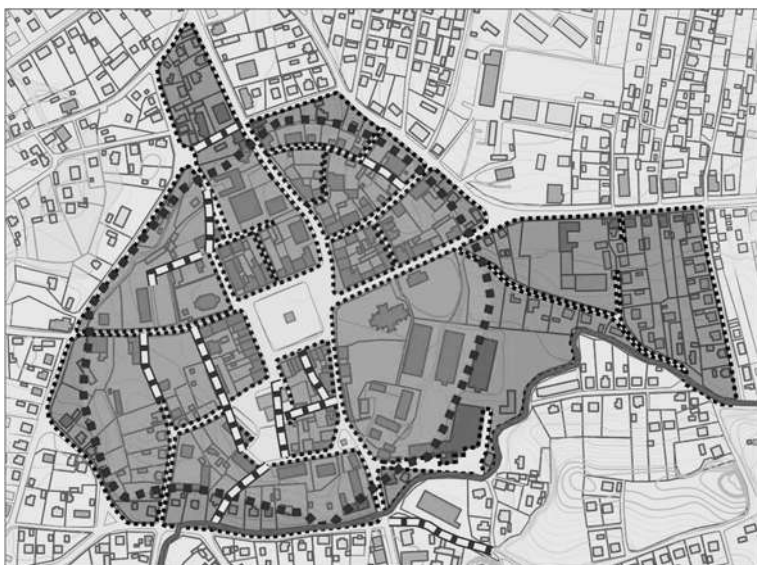
The historical space of the city, within which the most valuable architectural ensembles and complexes are localized, is its most important architectural and artistic value. Preserving its integrity is one of the first tasks in the regeneration of the city. At this stage, it is important to clearly understand the boundaries of development and which part of the city needs a particular approach for its development. In particular, if a historical city has certain boundaries of a nature reserve or protected area, then such territories are the most important and priority for preserving their inherited structure. There are very few such cities, so you should give preference to using the first approach to recreating the development and historical environment of the territory of nature reserves. Also, a certain clarity is provided by an understanding of the boundaries of the historical area of the city and defined zones of development regulation with their written out regimes and construction rules. The most justified approach to recreating the development and historical environment for the centres of historical cities of Ukraine is the second one. Often, historical cities do not have developed relevant documentation. Therefore, it is important to popularize the understanding of what the central part of a historic city is and how to define it.

Delineation of the territorial boundaries of the central parts of historical cities is carried out using the method of graphoanalytic comparison of cartographic materials and the analytical method. It is the central part of the historical city that can be characterized as follows – it is the architectural and urban planning part of the city outlined by scientifically based methods, formed from the historical street network, blocks with preserved traditional buildings and territories provided for the reproduction of the historically inherited nature of the environment, which covers blocks that were fully or partially part of the territory of the historical centre and is not less than it (Yasinskyi, 2018).

The most important point in determining the boundaries of the central part of the city is to outline the territory of its centre, that is, the part of the city that was surrounded by urban fortifications and was characterized by a higher density of development. Historically, the city was considered the territory of the city centre, so its configuration is the first criterion to define the boundaries of the central part of the historical city. To do this, you should use the results of comparing maps of the second military survey of the Austrian Empire (1861–1864), cadastral maps, modern topographic bases and the results of a field survey. Maps of the second military survey provide a better understanding of the approximate configuration of the city centre. Cadastral maps, due to their high accuracy, and full-scale surveys of the city should be used to clarify the boundaries of the city centre. You should pay attention to the various defensive fortifications recorded on the maps (earthen, stone, or other), which make it possible to determine the configuration of the city centre. If it is impossible to determine how defensive fortifications took place due to the lack of them on cartographic materials, then it is necessary to take into account the density of buildings, the size of parcels, as well as the configuration of the street network, which is more or less recorded on available cartographic sources. The territory with a higher building density is limited by the corresponding street network and can be considered the territory of the city centre. In cities where there is more than one market square (as it is in Buchach and Berezhany), the central part should include the territory that unites the borders of the centre formed around these two squares. However, in cases where there are no recorded defensive fortifications, you should rely on their hypothetical reconstruction and stages of development of the city (Bevz, 2004).

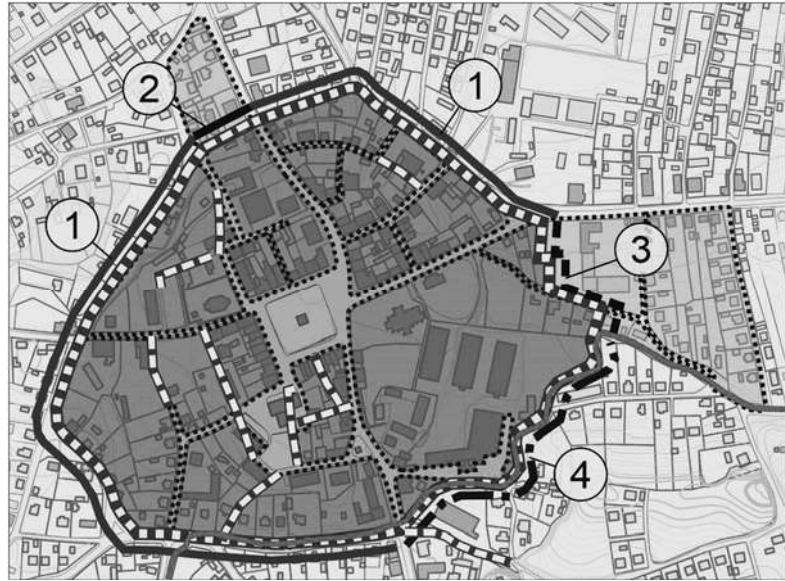


*Fig. 1.
The boundaries of the historic
midtown on a modern topographic
survey of the area.
(Yasinskyi, 2018)*

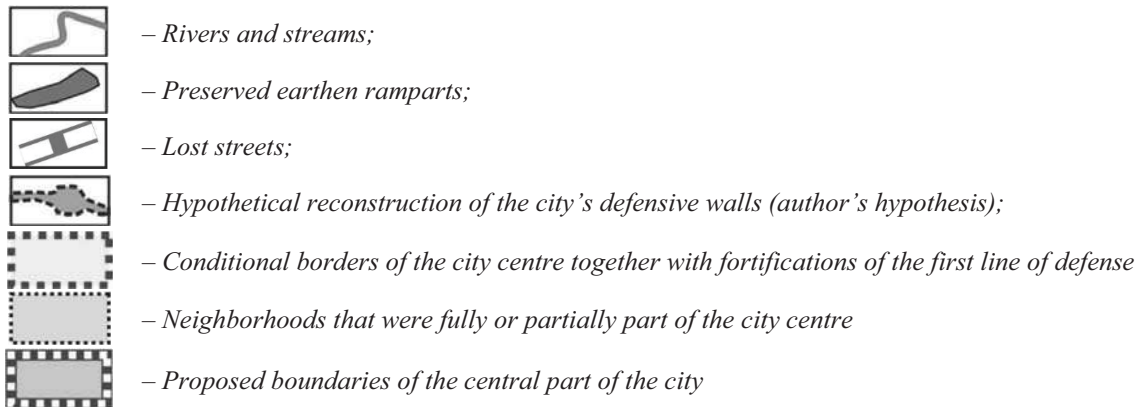


*Fig. 2.
Housing blocks that were completely
or partially within the boundaries
of the historic midtown.
(Yasinskyi, 2018)*

Fig. 3.
Determined boundaries of the central
part of the historic city:
1 – on existing streets;
2 – on historic streets;
3 – on the boundaries of parcels;
4 – on the boundaries caused by the
peculiarities of the relief.
(Yasinskyi ., 2018)



Legend (common for Fig. 1–3)



The city centre is considered as the territory of the city, which was bounded by defensive fortifications, together with the territory on which these fortifications were located, that is, it is the outer border of the first line of fortification of the city. When a certain territory of the city centre is superimposed on a modern topographic survey its border often runs in the middle of existing neighbourhoods (Fig 1). They combined the development of blocks that were located within the city centre under the walls and some territories outside it. Therefore, to preserve their integrity, these blocks should be fully included in the boundaries of the central part (Fig. 2). From here we output the second criterion to determine the territory of the central part of a historical city – quarters that are fully or partially part of the territory of the historical centre or the centre group that replaced each other during the development of the city. The border of the central part of a historic city should run along existing streets or natural restrictions behind such blocks. If there are no such streets, follow historical streets that are currently lost, provided that the urban planning situation allows them to be restored. The feasibility of restoring such streets should be determined in the city regeneration project. In other cases, when the configuration of the block is elongated and its length does not allow it to be fully included in the boundaries of the central part, then its border should run along the boundaries of the sections following those that were part of the historical centre. In this case, we additionally pay attention to the size of the parcels, the method and density of their development, as well as the specifics of the natural terrain - shafts or streams (Fig. 3).

Summing up, the border of the central part of the historical city should pass: along the existing streets for blocks that were completely or partially included in the city centre; along historical streets that are currently lost but passed through blocks that were completely or partially included in the city centre (provided that the urban planning situation allows them to be restored); along the borders of parts following those that were part of the

historical centre (if the configuration of the block is elongated and goes far beyond the boundaries of the city centre); along the borders caused by terrain features (ramparts, ditches, reservoirs, streams, and rivers)

A modern approach to the transformation of historical cities is to consider architectural monuments in the city as an integral system, which comes into active interaction with its modern structural structure. Dominant and emotionally expressive historical elements cannot only serve as museum exhibits. They should be active urban planning components that shape the environment, and sometimes compositionally subordinate to modern architectural forms.

It is from this point of view that the main methodological aspects of pre-project research should have the following steps:

- study of the composition of the historical city with analysis and evaluation of its “historical layers”;
- study and classification of the planning structure of the city and its elements in time with recording the most significant stages of its historical transformation;
- analysis of landscape nodes that affect the historical formation of the urban structure, elements of the city's silhouette, and disclosure of the main architectural ensembles.

The historical and cultural direction of the theory of architecture is becoming more and more relevant, as it concerns both the philosophical facets of the theory and the scientifically based reconstruction of historical cities. When working in the centres of historical cities, the problem of organic combination of historical and new architecture in their structure and integration of new modern functions that are necessary for the modernization of the city is brought to the fore. Taking into account the above aspects of the protection of the historical environment, as well as the experience of regeneration of historical cities in Europe and the results of research on modern architectural and urban planning processes and factors of transformation of historical cities, the following main requirements for the reproduction and development of the central part of historical cities are determined, compliance with which will make it possible to strategically approach the development of the city and its development, and minimize the number of new disharmonious objects in the historical environment:

1. the presence of scientifically based monument protection restrictions and the need for comprehensive regeneration of buildings (restoration of the historical planning and urban planning structure, street network, size and configuration of blocks and its hereditary addition);
2. the need for reproduction or museumification of lost valuable architectural objects (their reconstruction or recognition);
3. the need to preserve the historical typological characteristics of buildings, types of blocks and their parcel, methods of development, height and nature of buildings and their regional types;
4. implementation of restoration works of preserved valuable buildings;
5. improving the living conditions of permanent residents;
6. the need to take into account the cultural potential of the historical environment and plan the development of tourism;
7. urban planning conditions of the city centre that dictate the development of buildings of various functions – retail, service, office, residential, sacred, etc.;
8. creating a competitive investment climate that takes into account regional development programs;
9. creating a comfortable transport and pedestrian environment in the city centre;
10. taking into account the recreational potential of the historical environment

For the preservation of the historical environment of cities, the most effective method is protection zoning and revalorization or regeneration of the urban environment, which provide for an integrated approach to the reproduction of the historical environment of the city (Yasinsky M. R., 2014, Yasinsky M. R., 2016). Based on the requirements discussed above for the preservation of the historical environment, we propose to use the following architectural and urban planning principles for the reproduction and development of Block Development, which are based on the continuous development of the central part of the city:

- 1) The principle of preserving and restoring the traditional planning and urban planning framework, which provides for the restoration of the boundaries of blocks and historical parcel of development (based

on the reconstruction of the planimetric historical structure by periods), by regenerating the street network, arranging pedestrian zones, restoring the configuration and marking the line of fortifications, etc.;

2) The principle of imitation of the historical three-dimensional panorama of the city center, which provides for the preservation of dominants (sacred structures, fortifications) and compliance with the number of storeys of buildings consists in observing the height of the development of the quarter while complementing the part with its main components (transferring there if necessary economic functions from the existing disharmonious development of the part that should be dismantled).

3) the principle of imitation of historical typological characteristics of buildings, which dictates compliance with the methods of placing buildings on the parcels of the quarter and rehabilitation or elimination of disharmonious buildings and temporary structures, determines the main requirements for the three-dimensional composition of new buildings, regardless of the materials from which it is built.

4) the principle of harmonious functional use of the development and territory of the quarter, which provides for the adaptation of the territory of the quarter to the necessary functions, in particular recreational, as well as functional filling of the first floors and non-owned premises of the development of the quarter (attics and pubs, or other existing such premises).

5) the principle of harmonization or visual adaptation of existing historical and large-sized buildings that require restoration or reconstruction of such houses or renovation of their facades, in order to visually reproduce the parcel of the quarter and its architectural environment (Lesyk O., 2013)

6) the principle of taking into account in new construction regional features and specific historical forming characteristics of the development of the quarter, its parcel, the method of construction of buildings and their architectural and spatial composition.

All principles allow the use of modern architectural and construction innovations in the structural, engineering and architectural solution of buildings.

As we have already noted, within the central part of the historical city, as a rule, its ancient core with the most valuable architectural monuments is preserved. If there is a large concentration of monuments, they should be evaluated not as individual buildings or local ensembles, but as a complex of buildings of the street network and other elements of cultural heritage, since the centres of historical cities have preserved large urban planning elements: squares, streets and entire districts, which include, along with unique architectural monuments, ordinary buildings, historical environment. In accordance with the current legislation, the development of projects for the reconstruction of individual urban planning elements of historical cities located within historical areas is preceded by a mandatory historical and urban planning justification, which should include:

- identification and comprehensive assessment of architectural, historical and cultural monuments and related territories and all elements of historical and cultural heritage and determination of their architectural, artistic and urban planning value.
- research of losses of historical development and transformation of the urban planning structure and determination of the configuration of the central part of the historical city;
- identification of existing and localization of lost compositional and high-rise dominants of the city, which formed its vertical composition in order to further reproduce them and reveal the historical panorama of the city;
- identification of regional features of urban development, three-dimensional features of historical development and the specifics of architectural solutions (the line of the facade wall of the house, ways to complete it, the organization of the roof, as well as three-dimensional elements of facades);
- determination of the forms of urban planning protection of historical heritage, optimal modes of reconstruction and modern use of monuments and development of a comprehensive project for the regeneration of the central part of the historical city based on approaches to the regeneration of this territory, based on the principles outlined above.
- identification of parcels with characteristic combinations of elements of historical and cultural heritage, determination of the city-forming potential of the city centre and the possible impact of historical and cultural heritage on modern urban development activities.

Depending on the value of the historical heritage, its city-forming role, the method of development of the planning structure of the historically formed centre to its transformations is chosen. We can distinguish the following main methods:

1. Reconstruction within the historically formed city centre with the adaptation of its structure to modern requirements.
2. Territorial location of the historical centre with the construction of new public complexes on the adjacent parcels.
3. Creation of a new centre at a distance from the historical centre, which retains only a part of the citywide functions.

A prerequisite for the most reasonable reconstruction of local urban planning elements of the city is a methodological approach that assumes the presence of a common strategic line of reconstruction. Such a document can be a Comprehensive central city regeneration project. It should be based on the results of research conducted during the development of a historical and architectural reference plan. The project should provide for the possible reproduction of the lost street network, and therefore the size of blocks, the method of building blocks, objects of historical development (in particular, high-rise dominants), places and methods of placing new buildings, identify existing buildings that need reconstruction and provide for the harmonization of large-sized disharmonious buildings. The project should also describe the general requirements for new development within each block of the central part of the city according to its typology. In particular, you should specify the main three-dimensional characteristics of the new development – height, ways to place the building on the site or a combination of them, the direction of the roof ridge and acceptable ways to organize it. It is also advisable to reveal the essence of the traditional development of the city as a whole and by blocks (villa with porches, in the depth of the parcels near the street, etc.). The presence of such a comprehensive regeneration project will make it possible to develop a program for the regeneration of block development focused on recreating the characteristic environment, improving living conditions and attracting the necessary investments, since it will contain a complete picture of possible transformations of the entire central part of the historical city.

Based on the principle of including parts in the whole, small territorial units in larger ones, programs for the reconstruction of individual sectors of historical development are developed (for example, comprehensive transformation programs aimed at appropriate areas, for example, “Heritage”, “Housing Stock”, “Public Development”, “Transport”, “Engineering Infrastructure”, etc.).

The purpose of such programs is to compare the measures provided for by the integrated regeneration project with the available resources, identify the main directions and means that provide a solution to the problem.

For example, a program for the preservation and use of valuable historical and cultural heritage as part of a project regeneration the centre of the historical city should include: an assessment of the state of the heritage for a certain period of time and the problems caused by this, a list of research and design works for the preservation and use of the property, the scope of necessary reconstructive measures, etc. I will need resources for the implementation of measures, as well as the development of program implementation management structures.

According to project experience, the cycles of adjustment of historical, architectural and master plans, as well as detailed planning projects, are ten to fifteen years. Therefore, to ensure the continuity of the transformation process of the city centre, programs for the transformation of individual sectors of historical development should be provided for such a period. It is also advisable to develop strategic queues for the implementation of a particular program for transforming the historical environment of the city.

Conclusions

Given the current state of historic cities and the direction of their development and transformation, which leads to the loss of authentic historical environment and unification of new architectural forms, there is a need to improve the strategic approach to working with historic cities - where most valuable reserves remain. This approach, in addition to developing historical and architectural reference plan and protection

zones with regimes regulating their development, may be the allocation of the city center, ie its historic center as a separate zone, and its further protection and development based on scientifically sound approaches and principles. Therefore, the boundary of the central part of the historic city should include architectural and urban planning part delineated by scientifically sound methods, formed from the historical street network, neighborhoods with preserved traditional buildings and areas designed to reproduce the historically inherited nature of the environment. to the territory of the historic center and is not less than it. In this case, it will be possible to distinguish the historic city center as a complex with a special status. Restoration and adaptation of preserved buildings in combination with the construction of brand new houses on the site of lost ones, which take into account the specifics of the historical environment and meet the current processes of city transformation – 1) increase the functional content of neighborhoods and their construction, These neighborhoods should be the main approach to work within the historic part of the city. That is, for the central part of the historic city it is important to develop a comprehensive project for the regeneration of the historic environment. To develop a comprehensive regeneration project, the principles of work in the monumental environment of the city are important, namely: 1) The principle of preservation and restoration of traditional urban planning framework; 2) The principle of following the historical spatial panorama of the city center; 3) The principle of imitation of historical typological characteristics of buildings; 4) The principle of harmonious functional use of buildings and neighborhoods; 5) The principle of harmonization or visual adaptation of existing historic and large buildings; 6) The principle of taking into account new features of regional construction and specific its parcelling, the method of construction of buildings and their architectural and spatial composition. Depending on the value of historical heritage, its city of formative role is chosen way to develop the planning structure of the historically formed center, the approach to its transformation and programs to preserve and use valuable historical and cultural heritage.

References

- Andreev L. V., 1982. Fundamentals of the reconstruction of the historic city. Course of lectures. M.: ed. MARHI, P. 53.
- Bunin A. V., Savarenskaya T. V., 1979. "History of urban planning art", vol. I, M.: Stroyizdat, P. 445.
- Bevz M. V., 2004. Methods of identification and verification of different time elements of the planning and spatial system of the historic city (on the example of the city of Belza). *Bulletin of Lviv Polytechnic National University. Series of Architecture*. № 505, P. 350–360.
- Biegański P. & Kalinowski W., 1986. Warszawa. *Zabytki urbanistyki i architektury w Polsce Odbydowa i konserwacja. Tom-1. Miasta historyczne*, P. 537–580.
- Goncharenko M. E., 2005. Construction in the historical environment of the city. An attempt at analysis. in: Theory and history of architecture and urban planning. Kyiv: NDITIAM, P. 209.
- Gorbyk V. O., Kot S. I., 1990. On the issue of coverage of historical towns and villages in the "Collection of historical and cultural monuments" // Research of the history of small and medium-sized cities of Ukraine in the context of further development of historical local lore. – Chernihiv, P. 53–62.
- Gutnov A. E., 1984. Evolution of urban planning, M.: Stroyizdat, P. 247.
- Jamiołkowska J. & Kurzątkowski M., 1986. Lublin. *Zabytki urbanistyki i architektury w Polsce Odbydowa i konserwacja. Tom 1. Miasta historyczne*, P. 277–304.
- Kalinowski W., 1986. Sandomierz. *Zabytki urbanistyki i architektury w Polsce Odbydowa i konserwacja. Tom 1. Miasta historyczne*, P. 421–436.
- Krzyżanowski L., 1986. Gdańsk. *Zabytki urbanistyki i architektury w Polsce Odbydowa i konserwacja. Tom 1. Miasta historyczne*, P. 95–120.
- Kornecki M., 1986. Lanckorona. *Zabytki urbanistyki i architektury w Polsce Odbydowa i konserwacja. Tom 1. Miasta historyczne*, P. 261–276.
- Krupiński A., 1986. Tarnow. *Zabytki urbanistyki i architektury w Polsce Odbydowa i konserwacja. Tom 1. Miasta historyczne*, P. 477–496.
- Latour S. & Orlińska H., 1986. Szczecin. *Zabytki urbanistyki i architektury w Polsce Odbydowa i konserwacja. Tom 1. Miasta historyczne*, P. 437–460.
- Przyłęcki M., 1986. Olesnica. *Zabytki urbanistyki i architektury w Polsce Odbydowa i konserwacja. Tom 1. Miasta historyczne*, P. 341–356.
- Vedenin Yu. A., 2004. Fundamentals of the geographical approach to the study and preservation of cultural heritage // *Heritage and modernity. Information collection*, Issue. 12. – Moscow: Institute of Heritage, P. 5–10.
- Vechersky V. V., 2003. Heritage of urban planning of Ukraine: theory and practice of historical and urban monuments of conservation research of settlements. K.: NATIAM, P. 558.

- Irrigator K. A., 2012. Cultural heritage and its impact on the development of the regions of Ukraine / Nauk. red. L. G. Rudenko. – Kyiv: Institute of Geography of the National Academy of Sciences of Ukraine. P. 208.
- Savostina L. E., 2012. The order of accounting for immovable objects of cultural heritage. Realities and prospects // *Proceedings of the Research Institute of Monument Protection*, Vol. 7. Kyiv: Phoenix, P. 322–335.
- Sushchinskaya M. D., 2010. Cultural tourism: textbook. allowance. – SPb.: Izd-vo SPbGUEF, P. 128.
- Shevtsova A. O., 2014. Creative strategies of urban development: the essence of the concept and approaches to its understanding // *Ukrainian Geographical Journal*. No. 2, p. 39–43. <https://doi.org/10.15407/ugz2014.02.039>
- Yasinsky M. R., 2014. Regeneration of the historically formed planning structure of the quarters of the central part of small towns of Western Ukraine. *Problems of research, preservation and restoration of historical fortifications* No. 6, P. 70–77.
- Yasinsky M., 2016. Regeneration of historic residential blocks in small city centers of Western Ukraine. *Budownictwo i Architektura* Vol. 15, № 2, P. 87–100. https://doi.org/10.24358/Bud-Arch_16_152_12
- Yasinskyi M. R., 2018. Reproduction of residential blocks in central parts of small historic Towns: Author's ref. Ph.D. of Architecture. Lviv: Lviv polytechnic National University, P. 303.
- Zarębska T., 1986. Kalisz. *Zabytki urbanistyki i architektury w Polsce Odbydowa i konserwacja. Tom 1. Miasta historyczne*, P. 161–184.
- Żurawski J., 1986. Kazimierz Dolny. *Zabytki urbanistyki i architektury w Polsce Odbydowa i konserwacja. Tom 1. Miasta historyczne*, P. 185–212.
- List of historical settlements of Ukraine (cities and towns) [Electronic resource]. – Access mode: <http://www.heritage.com.ua/>
- Specifics of coverage of monuments of architecture and urban planning of historical cities in the “Collection of monuments of history and culture of Ukraine” [Electronic resource]. – Access mode: http://www.viche.info/journal/NAUKOVA_BIBLIOTEKA

Ірина Погранична¹, Максим Ясінський²

¹ кандидат архітектури, асистент кафедри архітектури та реставрації
Національний університет “Львівська політехніка”, Львів
e-mail: iryna.i.pohranychna@lpnu.ua
orcid: 0000 0002 4164 6110

² кандидат архітектури, старший викладач кафедри архітектури та реставрації
Національний університет “Львівська політехніка”, Львів
e-mail: maksym.r.yasinskyi@lpnu.ua
orcid: 0000-0002-8285-4522

МЕТОДОЛОГІЧНІ АСПЕКТИ НАУКОВО-ПРОЕКТНОГО ПРОЦЕСУ ЗБЕРЕЖЕННЯ ІСТОРИЧНОГО МІСТА

Анотація. Висвітлено методологічні аспекти роботи архітектора в історичному середовищі, розкрито сучасні тенденції та процеси трансформації архітектурно-містобудівної структури історичних міст. Розглянуто та проаналізовано три основні підходи до їх відтворення та трансформації, що їх використовувано на території Східної Європи в другій половині XX століття. Розкрито поняття центральної частини історичного міста як структурної одиниці міста та описано методику локалізації його межі. Також аргументовано важливість розуміння межі центральної частини історичного міста для збереження історичної архітектурно-містобудівної спадщини та які переваги можемо отримати за комплексного підходу до його регенерації. Висвітлено основні вимоги до відтворення та розвитку забудови центральних частин історичних міст дотримання яких дасть можливість стратегічно підійти до розвитку міста та його забудови, та мінімізувати кількість нових дисгармонійних об'єктів в історичному середовищі. Охарактеризовано архітектурно-містобудівні принципи відтворення та розвитку забудови кварталів центральних частин історичних міст, які ґрунтуються на спадкоємному розвитку, та допускають застосування сучасних архітектурно-будівельних новацій у конструктивному, інженерному та архітектурному вирішенні забудови. Охарактеризовано способи розвитку планувальної структури історично сформованого центру, підходи до його трансформації та обґрунтовано переваги розроблення комплексного проекту регенерації центральної частини історичного міста, який повинен ґрунтуватись на результатах проведених досліджень під час розроблення історико-архітектурного опорного плану, передбачати можливе відтворення втраченої вуличної мережі, а відтак і розмірів кварталів, способу забудови кварталів, об'єктів історичної забудови (зокрема висотних домініант), місця та способи розміщення нової забудови, визначати наявні будівлі, які потребують реконструкції та передбачати гармонізацію великогабаритної дисгармонійної забудови. Розкрито програмний підхід до реконструкції окремих секторів історичної забудови.

Ключові слова: історичне місто, центральна частина історичного міста, середмістя, регенерація, реконструкція, відтворення, забудова міста.