The problems of historical settlements’ enhancement and the possible solutions

N G Blagovidova¹ and N V Iudina¹
¹Urban Planning Department, Moscow Institute of Architecture, 11/4, Rozhdestvenkaya str., Moscow, 107031, Russia
E-mail: nablag7@yandex.ru

Abstract. The paper deals with the problems of historical settlements, which lead to the loss of their status and critical violations of the historical environment. The author analyzes the problems of historical settlements and their particularly vulnerable type – small formations – including social, political, economic, and scientific research. The author points out the need for complex innovative approaches that ensure not only the material restoration, but also the functional development of the historical environment, the introduction of new functions. The tools of working with the historical urban environment and its active functional inclusion in the modern discourse, models of increasing the value characteristics of urban objects, as well as the principles of implementing local potentials, which are laid in the basis of a holistic methodology, are considered. A strategy is proposed that solves the extremely acute issue of the urban significance of historical and cultural monuments on the basis of management tools and spatial planning, and tactical steps for its implementation are highlighted. The methodology obtained as a result of the study can be used as a basis for a national program aimed at developing and strengthening the social and economic role of small historical cities in the country’s settlement system.

1. Introduction
At present, the cultural identity of Russia is preserved in the cities towns and settlements called historical. This is a special regulatory status of urbanized education, declaring the need to preserve the urban environment as an integral historical, cultural, architectural, urban planning and landscape component. Unfortunately, the economic condition of such historical settlements in most cases seems to be critical. The destruction of production facilities and the outflow of population lead to the degradation of the material environment and the irretrievable loss of the national spiritual intangible heritage. At the same time, numerous national projects, “development programs”, existing approaches at the state, regional and local levels, unfortunately, do not bring the desired expected result.

The task of reviving historical settlements is complex and multifaceted. Development of methods and mechanisms to stimulate the active involvement of the local community in the maintenance and development of the urban environment is significant. As well social animation of the elements and components of a local brand has a special practical importance, as it allows to define and formulate a methodology for the management strategy aimed at the regeneration and development of small historic settlements.
Therefore, in the study, the authors aim to develop methods for ensuring the sustainable development of historical settlements and, in particular, their most vulnerable type—small historical settlements (with a population of up to 50,000) and the preservation of their cultural landscape.

2. Methods and materials. Comprehensive analysis

This stage primarily considers the problems of historical settlements on the basis of expert and statistical studies. There are considered Strategy of Spatial Development of Russia until 2025, National projects and programmes working dealing with small historical cities towns and urbanized settlements are considered: “Formation of a comfortable urban environment”, “Housing and urban environment”, “Culture”, “Ecology” and other related regulatory documents.

2.1. Identification

As it has already been noted, all of them the abovementioned programmes do not cope with the task of restoring and developing historical settlements. The architectural aspects of this issue lies in the field of restoration methods, in which, w. When the issue of conservation is developed, the problem of the necessity of a new function is put forward further functioning arises, which and this matter is not covered either in theory or in practice for the preservation of heritage objects and historical and cultural landscapes. As the expert in the field of cultural economics D. Frosby Throsby points out: , culture may be “culture can be a factor in local urban growth and have a long-term external economic effect longer-run externalities with real economic potential…” [1, p.125]. He, like other experts in the field of cultural economics, notes that the most important task of our present is one “the most important task at present is to find models of sustainability that balance socio-cultural issues of urban development the searching for a holistic model… which balance the multiple economic, cultural, social, environmental and other objectives of urban development, is provided by the notion of ‘sustainable city’…”, [1, p.126] which can also be attributed to the objectives of this study.

2.2. Preservation

To preserve objects and complexes of historical and cultural heritage, a number of restoration methods are used, which are legally allowed adopted in the territories of protected zones and zones of development regulation: [2, p.18].

1. Repair – periodically carried out work on the maintenance of the monument, carried out by construction methods;
2. Conservation (complete, critical or partial) – works on the preservation of the monument that require special measures to strengthen and protect it in case of mass damage;
3. Restoration (complete, critical or partial) - complex work to prolong the life and change the existing appearance of the monument to reveal more fully its artistic qualities and emphasize its value;
4. Adaptation – a complex of various operations designed to give the product a look or properties that will ensure it not only further preservation, but also the ability to play its role in the cultural system and the modern urban environment.

These methods are correct tools for working with the legacy without compromising its continued existence.

2.3. Restoration

The restoration of historical settlements, like any urbanized entity unit, requires the identification of potentials and their development in the interests of the city town and its residents. The role of human and intellectual capital as a resource for urban reconstruction transformation should be emphasized. Based on the identified potentials, the principles of their implementation are determined in order to maintain the stability of the historical settlement. It is impossible to say that of the presented methods of heritage preservation, only one—adaptation—deals with the issues of subsequent restoration and functional enrichment of the heritage. And at the same time, this area is the least methodologically
developed of all four ones [3, p. 188]. And even more difficult task is the adaptation of urban planning complexes that work as complex systems.

2.4. Development
Following the logic of the restoration stage, the choice of a development strategy is based on the analysis of the characteristics of the environment (strengths and weaknesses, potentials and threats), which is a standard management tool. Methods of benchmarking, alternative analysis, and others adapted to the subject of heritage are also used. Together, they are part of the valorization process, which is known from the field of management.

The city town as a complex system needs to be connected possess cohesion. In addition to the obvious spatial aspects, it is impossible not to touch on the fourth – virtual-dimension of today’s urban environment. An electronic digital system for monitoring, managing, engaging the population and, of course, a database, form an already well-known and used digital ecosystem, in this case, for historical settlements.

3. Materials and methods. Strategy development

3.1. Identification
A detailed analysis of sources on the problems of historical settlements revealed five categories of reasons for their decline:

1. Social and spiritual intangible ethnic reasons
   It is necessary to pay attention to the lack of awareness ignorance of the identity of the community of the historical settlement and its low cohesion, caused, among other things, by the replacement of the local population by newcomers. This trend leads to limited community activity and a fear of change. The lack of a competent professionals and expert body association for the harmonious development of the urban environment and the realization of the needs of residents leads to a shortage of public spaces, exacerbating the lack of urban social contacts.

2. Economic reasons
   The principal problem is the loss of key functions of the settlement and, as a result, the decrease in the stability of the material base, the bloating of the service sector, and the reduction of jobs. In addition, the lack of short-term and, most importantly, long-term development programmes and plans for the benefit of local residents and the problem of unfair distribution of benefits play a role.

3. Reasons in the field of cultural and conservation schedules regulations and regulation of modern heritage development
   The already voiced imperfection of the security schedules conservation regulations is compounded by the lack of control over their compliance not only at the design stage, but also during the restoration work and, most importantly, according to the results of after the work is performed. The root problem is the discrepancy between the protection regulations and development programmes, the lack of tools for the integrated development of the historical settlement. A comprehensive and publicly accessible, interactive database on heritage and valuable urban development sites has not been formed.

4. Political reasons
   The direction of the programme for the historical settlement development is precisely the ideological component. The authors are convinced that the system of the historical settlement and its urban environment should be created in the interests of local residents. They should be provided with qualified advisory support from experts in the field of architecture and heritage protection and local historians. The mechanisms of effective interaction with the administration of historical settlements are still far from ideal.

5. Research and architectural and planning reasons
   Research interests in relation to historical settlements are extremely large. However, the scientific work on the study and development of urban development strategies is faced faces with methodological gaps – the lack of interdisciplinary tactics for working with such urban systems – and
with the limited and poor quality of statistical data on the settlement. The question of determining the value of a historical settlement remains open – so far, only market criteria are used.

As we can see, the main range of problems is the issue of reuse of heritage sites and complexes. Here it is necessary to refer to the concept of the ecology of culture, introduced by Academician D.S. Likhachev. [4] Cultural values, as the basis of the ethical code of any human community, must be preserved and ensure the development of the community.

What is the way to increase the public value of cultural heritage? Foreign practice has already given an answer to this question with the help of the reuse or valorization stage, which is necessary when working with objects and complexes of cultural heritage.

They should also define the full range of tools for working with the historical environment; they are shown in Figure 1.

![Figure 1. Tools for working with the historical environment.](image)

Thus, we have analytical data and tools regarding the environment of historical settlements, on the basis of which valorization has been identified as the most important and least developed tool in domestic practice. Its essence lies in the effective transfer of value capital. The most commonly used model for this purpose is the M. Porter’s value chain model, [5] which establishes direct links between all the components of an object or complex of historical heritage. However, in relation to considering territorial spatial component, it is advisable to use an alternative development approach that emphasizes the increase in connectivity due to the development of social relationships and, consequently, the increase in social capital. The so-called value network model [5] provides a fundamentally different attitude to market concepts, their adaptation for the purposes of social regeneration.(Fig.2) [6].

![Figure 2. Principles of the value network model.](image)

3.2. Preservation+Restoration

The results obtained at the identification stage indicate the need for an organic combination of methods for preserving and restoring heritage, adapting it to modern use as objects and complexes of public value. Restoration methods are inseparable from the project of subsequent use and should be created on the basis of the process of identification (recognition) of values.

The identification of local potentials should be carried out at the local level. For this purpose, it is recommended to create an expert and public council on the heritage of a settlement/city/district, which would include local historians, public activists and leaders of public associations, experts in the field of heritage of a particular urbanized entity.
These statements should be adapted to specific locations, and do it as tactfully as possible, as each historical settlement has its own unique features. Their consideration is the realization of local potentials as part of the strategy for the preservation and restoration of the historical settlement and should be guided by the principles presented in Figure 3 [2].

![Figure 3. Principles of implementation of local potentials in the development of a historical settlement.](image)

4. Results and discussion. Development resources
When developing individual historical settlements according to these principles, they one should pay attention to a number of features. First of all, many settlements need to create a new production industrial base from scratch. In its absence, it is possible to rely only on hidden, creative potentials, which, although they may continue to be historical, need a modern reinterpretation.

Large infrastructure projects require not only well-thought-out programmes, but also serious large financial investments, in the hierarchy of which the local level occupies an insignificant position. For successful transformations in historical settlements, it is necessary to create a holistic strategy for their development. Moreover, it should represent effectively the interests of local residents at different system levels: local, city, regional, and so on.

On the scale of a city, district, or region, we can only talk about the functional-planning relationship. The research conducted by the authors shows that the architectural and urban heritage is present in the historical settlement of this scale in separate clusters, “islands”. [2] The model of the value network of values mentioned earlier, in the presence of a number of such clusters, suggests the possibility of using the network model, creating a network of cultural heritage. The complexity of the system is compensated by means of virtual communication, common in our time.

On a local scale, such transformations form a high-quality urban environment are tactical in nature. In this way, it is possible to ensure a gradual implementation that is less costly and gives quick results and noticeable transformations.

Therefore, based on the principles of development, it is possible to formulate the following tactical steps of the strategy. See table 1.

| Principles | Measures |
|------------|----------|
| Historical and cultural identity | Creating a network of urban centers based on local historical and cultural heritage; |
| Contemporary development based on relevant and historically defined resources | Development of existing capacities on the basis of a new functional paradigm-planning transformations should be accompanied by the restoration or strengthening of production functions; Attraction of commercial companies and investors without privatization-investment activities should be carried out in such a way that the main beneficiary is the population of the city, and the received income |

Table 1. Strategy for the development of a small historical settlement.
supports further development

| **Authentic branding** | *The use of hidden potential*, including on the basis of a modern reinterpretation of centuries-old accumulated folk traditions. These can be, for example, folk crafts as a creative potential of the city; |
| **Engagement and dialogue with the community** | Improvements aimed at improving the *social quality of the environment* – all steps for the functional and planning transformation of the environment of the historical settlement should be expressed in the arrangement of urban public spaces and the expansion of employment and leisure opportunities; |
| **Anticipated development with the arrangement of high-tech experimental production** | *Innovative methods* in the arrangement of production and management which include technological, intensive improvements: digital systems with the inclusion of the public and experts, national databases on historical settlements. |
| **Supporting development expressed in cyclical internal systems of self-sufficiency** | *Tactical transformation*– working with individual parts of the environment reduces the financial burden and allows implementing gradually the overall system |

### 5. Summary

Such a strategy can be taken as the basis of a national program aimed at developing and strengthening the social and economic role of small historical cities in the country’s settlement system, and the possibility of their adaptation to constantly changing environmental conditions. The presented methodology makes it possible to include actively historical and cultural heritage in the urban environment, which solves the extremely acute issue of the urban significance of historical and cultural monuments with the help of management strategies.

### 6. References

[1] Throsby C D 2001 *Economics and Culture* (Cambridge University Press, United Kingdom)
[2] Blagovidova N G, Iudina N V 2020 *Cluster approach to the valorization of small historic towns: case study of Sestroretsk: a monograph* (BukiVedi Press, Moscow)
[3] Bobrov Yu G 2004 *Theory of restoration of art monuments: regularities and contradictions* (Edsmith, Moscow)
[4] Lihachev D S 1983 *Native land* (Prosveshchenie, Moscow)
[5] Stabell C B, Fjeldstad Ø D 1998 Configuring Value for Competitive Advantage: On Chains, Shops, and Networks *Strategic Management Journal* **19** 410-440
[6] Della Torre St 2015 *Shaping Tools for Built Heritage Conservation: from Architectural Design to Program and Management Community involvement in heritage eds* (Garant Publishers, Antwerp-Apeldoorn) 92-116

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