

ADAPTIVE REUSE OF HISTORIC RURAL SCHOOL BUILDINGS IN UKRAINE IN THE POLTAVA REGION

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Abstract

The actual problem of adaptive reuse of historic buildings of rural schools in Ukraine is discussed in the article using the example of Poltava region. The history of the construction of Zemstvo schools in Ukraine is researched, the historical and cultural value of school buildings is determined, and their current condition is analyzed. Zemstvo schools of the architect O. Stalstion in the Ukrainian architectural style have the greatest historical, cultural and social value. Factors affecting the choice of a new function of former school buildings are identified. For the first time, possible approaches to the adaptive reuse of historic rural school buildings are proposed: strategy of memorialization of buildings, strategy of social integration, strategy of active transformation of buildings. Adaptive reuse of historic school buildings is considered as one of the means of ensuring the sustainable development of rural communities.

Keywords: Adaptive reuse; Historic buildings of rural schools; Ukraine; Zemstvoschools; Ukrainian national romanticism (Ukrainian architectural style)

Introduction

Rapid urbanization processes, resulting in population outflow and depopulation of rural areas, combined with new requirements for school buildings, lead to mass closure of schools in rural areas of Ukraine. According to the Institute of Educational Analytics [1], 1,342 schools in rural areas were closed in Ukraine from 2019 to 2021, which led to the need to solve the problem of using school buildings that are not being used and are gradually falling into disrepair. The process of shrinking the school network is not unique to Ukraine. Almost all developed countries have faced these problems since the active outflow of peasants to cities, and currently the problems of using abandoned buildings and social problems are also being solved in the countries [2-5]. But the lack of comprehensive research on the historical and cultural value of school buildings, especially those built during the introduction of general compulsory education at the end of the 19th and the beginning of the 20th centuries, is specific to Ukraine. Ukraine has developed legislation on the protection of cultural heritage, a state register of cultural heritage objects, research documentation on the protection of historical heritage is actively being developed in large cities, but the territories of rural communities are still poorly covered by research, and historic rural buildings are not considered as objects of

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cultural heritage and are not legally protected from destruction. This determines the relevance of this study.

The following acquisitions of world experience in preserving historical and cultural heritage were fundamental for this study:

- adaptive reuse of a historical building is one of the effective ways to preserve and update it for modern conditions [6-8];
- the degree of historical value, preservation methods and building adaptation strategies are determined by the cultural context, the role of buildings in local and national history and collective memory [5-10].

The theoretical basis of this work consists of the following research areas of this issue:

- a) the history of the construction of rural schools in Poltava region in the context of the school education development in Ukraine at the end of the 19th century [11-14];
- b) peculiarities of Ukrainian modern architecture of the beginning of the 20th century and the work of the artist and architect Opanas Slaktion - publications by O. Slaktion [15] V. Chepelyk [16], V. Hanko [17], N. Novoselchuk [18]; including the public initiative "Schools of Lohvytsia Zemstvo"[19] with the participation of O. Herasymiuk, I. Bykov, V. Hanko and others;
- c) theoretical aspects of preservation of historical heritage and adaptive reuse of historical buildings and architectural monuments - publications by F. Francioni [20], L. Wong [21], J. Douglas [22], P. Spiridon *et al.* [23] and others;
- d) practical experience of adaptive reuse of school buildings - publications by L. Mydland [9], A. Beisaw and J. Baxter [24], F. Li *et al.* [25] in different countries of the world.

The main purpose of the study is to determine directions and strategies for the possible adaptive reuse of historical buildings of rural schools in the territory of Poltava region (Ukraine) from the standpoint of reviving collective memory and defining their sociocultural role. The purpose of the research determined its main tasks:

- to investigate the history of the construction of schools in Ukraine and Poltava region in particular, to determine their socio-cultural role and peculiarities of stylistic and architectural planning solutions;
- to analyze the current state of historical buildings of rural schools in Poltava region, to determine their historical and cultural value and degree of preservation;
- to provide proposals for preserving the valuable fund of historical school buildings and formulate directions and strategies for their adaptive reuse;
- to test the results of the research on the example of the main types of Zemstvo schools by the architect Opanas Slaktion.

The geographical boundaries of the study are determined by the historical boundaries of Poltava province; chronologically, the study covers the history of school construction from the end of the 19th to the beginning of the 20th century until the 1920s. The scope of the research is the study of buildings for primary education.

Materials and methods

The article is based on the analysis of two groups of materials: historical literary, archival and iconographic sources, regarding the emergence and development of rural schools in Ukraine; materials of on-site research and photo-fixation of historical school buildings in rural areas of Poltava region, conducted by the authors [26] in 2008-2012, 2022.

The research is based on the main provisions of the system approach in architecture and the cultural approach, which is due to the complex nature of the work. Within the framework of the cultural approach, a meaningful analysis of the formation and development of the network of rural schools is provided against a broad cultural background, under the influence of socio-cultural, political and ideological factors.

The purpose and tasks of the work determined the use of general scientific research methods: analysis (historical, comparative, cartographic, graphic), systematization of data, abstraction and synthesis. Archival, bibliographic and iconographic research was carried out to determine the history of the construction of schools in Poltava region. Field studies, methods of photo-fixation, graphic analysis, comparative analysis and systematization were applied to identify the types of historical buildings of rural schools, determine their current state, historical and cultural value. In total, about 100 historical buildings of rural schools of varying preservation degrees in the historical boundaries of Poltava province were investigated, including 59 buildings in the style of Ukrainian national romanticism by the outstanding architect and artist Opanas Slastion. Analytical methods, systematization and synthesis made it possible to determine the main factors influencing the choice of a new function and to formulate possible directions and strategies for the adaptive reuse of historical rural school buildings. With the help of modeling methods, project proposals for the adaptive reuse of the main types of Zemstvo schools by Opanas Slastion were implemented.

Results and discussion

History of construction of rural schools in Poltava province

The structure of education in the 19th century in the Russian Empire, which included the Left Bank of Ukraine, consisted of:

- primary schools maintained by the state, zemstvos, citizens, the church and private individuals;
- secondary schools (classical gymnasiums, real and cadet schools, theological schools and seminaries and women's secondary schools);
- universities (higher education).

But there were very few educational institutions, and the majority of the empire's population was illiterate. Under public pressure, the tsarist government was forced to adopt a law dated May 3, 1908 (with addenda dated June 10, 1909 and June 14, 1910) on the introduction of compulsory primary education in the Russian Empire [27]

A great role in the development of public education belongs to the zemstvos - the first local self-government bodies that were created as a result of the democratic reforms of 1864 in the Left Bank and Southern Ukraine. With the introduction of the law on compulsory primary education, zemstvos got the right to establish zemstvo schools, which led to the active development of schools in rural areas. Despite the start of the First World War, which delayed the development of the school network, already in the 1917/18 academic year in Poltava province there were 1,810 secular schools (3,643 school kits), 895 parish schools and 66 literacy schools, which covered 63% of school-age children [27]. This rather successful implementation of the network of zemstvo schools was the largest in the territory of Ukraine. The most successful executors of the planned network of schools were the Lohvytskyi, Pyriatynskyi and Zinkivskyi district zemstvos of Poltava province [13, 28].

Education in zemstvo schools was of higher quality than in other elementary schools, teaching methods were more progressive and programs were less regulated than in state ministerial schools and church-parochial schools. In some schools, based on the decisions of the Zemstvo assemblies, they began to teach in the Ukrainian language, despite its ban in the Russian Empire, they also taught the history of Ukraine and local history, and sought to bring education closer to the real needs of rural life [29]. The tsarist government did not trust zemstvos and constantly limited their activities and rights. In this period, Zemstvo institutions were the leaders of democracy and the ideology of national revival.

Since the middle of the 80s of the 19th centuries, Poltava Zemstvo began work on studying the needs of the province in primary educational institutions, which at that time covered only 17% of school-age children. On the basis of research carried out by the district

zemstvo administrations, measures for the establishment of primary schools and requirements for the placement and planning of school buildings were developed. In particular, the location was regulated by the service radius, which did not exceed 3 versts. In addition, the area for the educational institution should be as flat and dry as possible, away from pubs, bazaars and shops. The facade of the building should face south or southeast. Schools were recommended to have a spacious yard or garden for students to walk during breaks. The cubic content of air in classrooms was calculated for one student at 4.05m^3 , and the floor space - at least 1.35m^2 . The light from the windows in the classrooms should fall on the bench on the left, and the light area of the windows should be related to the floor area as 1 to 5 or $5\frac{1}{2}$. To clean the air, a small hinge was made in each window and in addition, ventilation was arranged. In addition to the classrooms, there were rooms for undressing and for the watchman [30].

In 1894, Poltava provincial zemstvo began financing a program of compulsory primary education for children aged 8-11 [30] and in 1897, regional rules for school construction were approved, developed on the basis of data from technicians of the provincial zemstvo, which provided for the following:

- one student should account for 2 square arshins of space and 9.11 cubic arshins of air with a room height of $4\frac{1}{2}$ arshins;
- the ratio of the window area to the floor area should be 1:8;
- the bottom of the window must be placed from the floor at a height of at least $1\frac{1}{4}$ arshin and in high rooms it is desirable to increase this norm to $1\frac{1}{2}$ arshin;
- for one teacher, an apartment of 36 square arshins with a wall height of $4\frac{1}{2}$ arshins was assumed, excluding the area of the kitchen [31].

With the aim of introducing general compulsory education, in 1905 specialists of Poltava provincial zemstvo developed a project for the corresponding school network [32]. A preliminary survey of the existing material and technical base of primary educational institutions was carried out. In 1895, there were 721 zemstvo schools, 339 parish schools, and 446 literacy schools in the province. One educational institution accounted for 406 school-age children and 40 square versts of territory. The network was distinguished by uneven placement of existing educational institutions. 70% of school buildings did not meet regulatory requirements [31, 32].

The project was based on the following principles:

- the share of students from the total estimated population should be 9%;
- a normal school set should consist of 50 students per room;
- all boys and girls aged 8-11 should be provided with school places;
- the number of students for each school should not exceed 4 sets (200 students);
- every settlement with at least 50 school-aged children must have its own school;
- settlements with less than 50 school-aged children are combined into school districts;
- the boundaries of school districts are determined depending on the topographical conditions of the given area and on the 3-verst radius of school service;
- for the settlements that remained outside the boundaries of the districts, to build separate schools if the number of school-age children in these settlements is not less than 20, the primary school course is considered to be 4 years.

As a result, it was established that in order to provide primary education to all children in the districts of the province, in addition to the 1,662 schools that existed in 1905, it was necessary to establish 1,253 more schools, of which 304 are one set schools, 497 are two set schools, 277 are three set schools, and 175 are four set schools [33].

Buildings of Zemstvo schools in Poltava province were built according to projects of Zemstvo engineers and technicians in compliance with regional regulatory requirements. The schools of the province, in a typological sense, were based on plans created on the models of the plans of Finnish architects. These were one-story buildings that included changing rooms, classrooms, rooms and an apartment for teachers. These small buildings were usually located on

vacant lots. The most common type of school was rectangular in plan with rooms located along one, two or three sides of the recreational corridor. Some of these buildings were characterized by a simplified silhouette and almost no details. They can be attributed to the phenomena of the rationalist trend in architecture.

According to their architecture, school buildings were eclectic or simplistically rationalistic, some of them were built in provincial neoclassicism, pseudo-Russian style and from the beginning of the 20th century there were borrowings of the Art Nouveau style (Fig. 1). But in most cases, the so-called "brick style" was presented in the buildings of Zemstvo schools, which is conventional for designating unplastered buildings (in the styles of modernism, eclecticism, neoclassicism etc.) and which is characterized by the replacement of stucco decorations and stucco with unplastered brick decor.

The writer Olena Pchilka wrote about the vagueness of the architecture of school buildings in 1909, addressing the Poltava Provincial Zemstvo, in the magazine "Native Land", where she expressed her wish that the architecture of school buildings correspond to the people's taste and acquire features of national originality [14].

In 1910, the Poltava provincial zemstvo, chaired by Fedor Lyzogub (a well-known zemstvo figure, Ukrainophile, in 1918 the chairman of the Council of Ministers of the Ukrainian People's Republic) held a competition for the development of school building projects in the so-called "Ukrainian style" [34]. In the summer of 1910, the Lohvytsia zemstvo administration, on the initiative of its chairman Mykola Tereshkevych, decided to build zemstvo schools in the district in the Ukrainian style [35].



Fig. 1. Variety of stylistic directions of school buildings of the beginning of the 20th century. Primary school in the village Solonytsia, 1911; 2 - Zemstvo school in the village Belotserkivka, 1913; 3- Zemstvo school in the village Kamiani potoky, 1913; 4- Zemstvo school in the village Sulymivka, 1915; 5- four-room Zemstvo school in the village Stari Sanzhary, 1910s; 6- Zemstvo school in the village of Reshetylivka, 1910s

In 1912, the artist and researcher of Ukrainian folk art, Opanas Slastion, designed a series of school buildings, worked on the facades, introduced improved forms to the architecture, decorative decorations on the facades made of unhewn bricks in the form of

separate inserts, moldings, arabesques and carpet compositions in folk ornaments characteristic of Poltava region (Fig. 2). Lohvitysia zemstvo orders O. Slastion 83 school buildings in the Ukrainian style, some of which are realized in Lohvitytskyi district.



Fig. 2. The design of the facade of the Zemstvo school building of Lohvitytskyi district and the plan of a two-room school for 100 students. 1910–1911 year. Architect Opanas Slastion. Photocopies from the fund of the Lohvitytskyi Local History Museum named after Hryhorii Skovoroda

The socio-cultural basis of the creation of a national style in the architecture of Ukraine, as well as in the European architecture of the 19th and early 20th centuries in general, was the ideology of nation-building. Due to the absence of its own state, culture became the main factor of nation-building, which ensured the preservation of ethnic identity and formed national consciousness. Culture moved the center of attention to the folklore layer, which manifested itself in the formation of the populist theory in Ukrainian historiography. Manifestations of national styles in European countries, based on the ideology of national revival and identification of the nation in architecture, coincide in time, representing monovalence. In the Scandinavian and Baltic countries, folk-style trends are defined as "Northern Romanticism" [36], in Poland their manifestations are referred to as "Zakopane style"[37], in Romania they are defined as "neo - brâncovenesc" and neo-Romanian style [38, 39]. In Ukraine for a long time, they were classified as Ukrainian modern (the term of V. Chepelyk [16]), currently they are referred to as Ukrainian national romanticism. Examples of folk architecture and heritage of the Hetman era, mainly Ukrainian wooden churches, became the expression of the idea of Ukrainian national identity in architecture. From these prototypes, O. Slastion borrowed and interpreted a specific composition, the use of tower volumes, trapezoidal forms of openings, folk-style roofs and ornamentation [15] (Fig. 3).

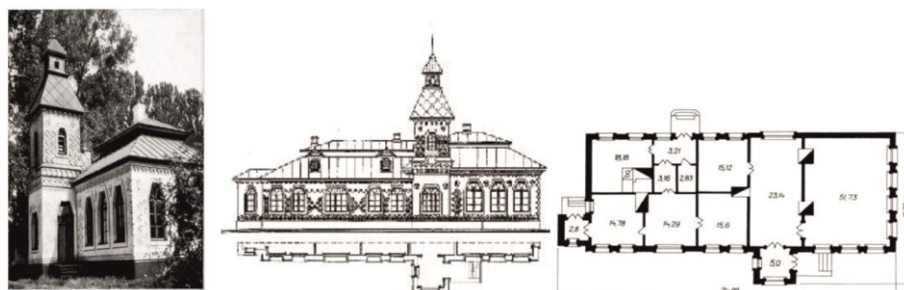


Fig. 3. One set zemstvo school in the village of Zapadyntsiin Lohvitysia district (built in 1913). General view, façade and plan (photo, measurements and drawings by V. Chepelyk, 1978 [16]). The school burnt down in 2014

The appeal to the "Ukrainian style" in the buildings of zemstvo schools in Poltava region was not accidental. At that time, the Poltava provincial zemstvo was distinguished by its

progressiveness and nationalist orientation, and Poltava Region had already become the centre of the formation of the Ukrainian architectural style. It was here that the projects of its founders, Vasyl Krychevskyi and Opanas Slastion, came to life. The first building in this style was the building of the Poltava Provincial Zemstvo in Poltava (1903–1908, architect V. Krychevskyi). And then Slastion creates several projects of school buildings of different capacity for Lohvytsia Zemstvo, designed for 1-3 sets of students. These were single-story buildings with a convenient layout, clear functional zoning of groups of rooms and various facades (see Fig. 3-5).

During the implementation of O. Slastion's projects, several more conservative-minded deputies and government officials tried to ban the Ukrainian style, but the Lohvytsia zemstvo voted by a majority of votes against one to preserve the Ukrainian style in the buildings of zemstvo schools [11, 12]. Unfortunately, during the years of the Soviet occupation of Ukraine, zemstvo school buildings and Ukrainian style were deliberately ignored, their architectural and socio-cultural role was belittled. And Russification and the fight against manifestations of Ukrainian nationalism led to the fact that little by little the information about the history of zemstvo schools in Ukraine was blurred and the collective memory was interrupted.

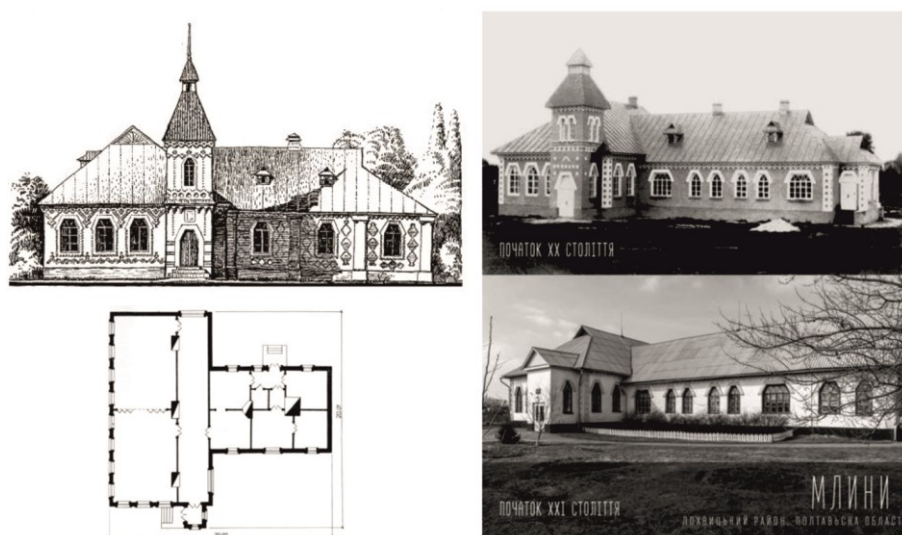


Fig. 4. Two set zemstvo school in the village of Mlyn Lokhvytsia district (1913): a) Façade and plan, drawings by V. Chepelyk, 1978 [16]; b) Photo taken in the beginning of the 20th century and photo taken in the beginning of the 21st century. The building lost its entrance towers



Fig. 5. Three set zemstvo school in the village of Luka Lokhvytsia district (1913). The building lost its entrance towers. Plan measurements by V. Chepelyk, 1978 [16]

Historical and cultural value of historical buildings of rural schools

The research revealed more than 100 historical buildings of rural schools in Poltava region. The identified objects were systematized according to the following characteristics: by departmental subordination (land, church-parish, ministerial or state, private, public); by capacity (1-4 set, from 50 to 200 students); by floor space (one-story, two-story).

As a result, the discovered objects are classified according to their historical and cultural value as follows:

Category I - objects of outstanding historical value. This is a network of rural schools of Lokhvytsia Zemstvo by architect O. Slastion, the most valuable historical school buildings from the point of view of architectural design, historical and cultural significance. They are highly artistic and unique architectural works that record in material form a certain stage of the development of Ukrainian architecture, have preserved authenticity and are the works of the famous Ukrainian architect and artist O. Slastion. This status is determined by the following architectural and planning features of the objects:

- progressive planning, which increases the adaptive properties of objects (the presence of sliding wooden doors, which allow to combine classrooms into one large hall) (Fig. 6);
- fixation of entrances to the school with decorative towers, which makes the building a town-planning dominant in the settlement (Fig. 7a);
- exquisite brick ornament on the facades, which uses and develops the traditions of Poltava folk embroidery (Fig. 7b);
- pitched roofs with characteristic folds and dormer windows (Fig. 8);



Fig. 6. Sliding door between classrooms in the school of the village Mlyny Lokhvytsia district (1911)



a.



b.

Fig. 7. Entrance towers with folds preserved in zemstvo school in the village of Yablunivka (a) and a lace ornament on the façade of the school in в Pisky (b)



Fig. 8. Pitched roof with characteristic folds and windows preserved in schools in the villages of Haivshchyna (on the left) and Bodakva (on the right)

- multi-functionality of buildings (combination of classrooms, teachers' housing and village library in one building);
- the use of trapezoidal windows and doors, which is characteristic of Ukrainian national romanticism;
- the typical three-dimensional solution of the building provides for the uniqueness of the facade of each school due to variations in constructions and individual network ornaments on the facades. In total, the architect developed 10 facade options for each type of school;
- the first example of serial design of buildings on the territory of Ukraine, all buildings are designed in the same style and according to the same compositional principles;
- the first modern buildings designed specifically for rural areas of Ukraine;
- the network of schools by O. Slastion is a unique object of urban planning heritage of Ukraine.

In 2019, due to the efforts of the public, including the authors of the study, and the Poltava State Administration, 36 buildings of Opanas Slastion schools were entered into the State Register of Historical Heritage of Ukraine as architectural monuments of local importance, 4 buildings were recognized as newly discovered objects of cultural heritage. So far, the authors have submitted proposals for historical preservation and raising the status of all objects to monuments of national importance.

Category II - objects of high historical value. These are isolated historical school buildings, the architecture of which is expressive, characteristic of this period. This category included a number of discovered objects representing: interpretations of Ukrainian national romanticism (zemstvo schools in the villages of Kamiani Potoky and Sadky in Kremenchuk district), neoclassicism style (zemstvo schools in the village of Lutaika, Hrebinka district, in the village of Solonytsia today Kremenchuk district), eclecticism with elements of Art Nouveau in the decor (zemstvo schools in the village of Yarmaky, Myrhorod district and the village of Baranivka, Shyshaky district) etc. Proposals regarding measures for their preservation and inclusion in the State Register of cultural heritage objects of Ukraine as monuments of local importance were provided.

Category III – a valuable historical building that has a town-forming significance for a certain area, dominates the space of the settlement and records historical planning and land ownership (four-room zemstvo school in the village Stari Sanzhary, zemstvo school in the village of Reshetylivka). It is usually located in the centre of the settlement.

Category IV - an ordinary historical building, which has a low historical value, from the point of view of style and form, it has no independent artistic and architectural value (zemstvo school in the village of Bilotserkivka, Velyka Bahachka district; zemstvo school in Kuntseve village, Novosanzhar district; zemstvo school in Novy Tagamlyk village, Poltava district and others). The analysis of the current state of the network of historical schools in

Lokhvytsiadistrict revealed its rather high degree of preservation, which gave grounds to propose that it be recognized as a monument of urban planning.

The current state of historical school buildings of the late 19th and early 20th centuries

Among the identified objects, only 20 buildings are used for their original purpose, 25 buildings are used for other purposes, the rest are not in use and are in a neglected state, which makes their preservation difficult. It was found that larger buildings (four-set schools and ministerial two-story schools) preserved their original function but underwent re-planning or additions. The closing of historical schools is determined not so much by a change in the requirements for their functioning, but by the depopulation of rural areas as a result of the processes of urbanization and the unsuccessful administration of the network of rural settlements. Vandalism through abandonment or tacit passivity prevails in relation to closed school buildings [23].

As for the schools of Lokhvytsia Zemstvo, in 2016the public initiative "Schools of Lohvytsia Zemstvo" identified 59 buildings [19]. Currently, according to the modern territorial and administrative distribution, they are located in four districts of Poltava region: Lubenskyi, Lohvytskyi, Pyriatynskyi and Chornukhynskyi, as well as in Varvynskyi district of Chernihiv region and Romenskyi district of Sumy region. The analysis carried out by the authors in 2022 determined that only 11 of the buildings of the Zemstvo schools by Opanas Slastion are used for their primary function as schools (Fig. 9).

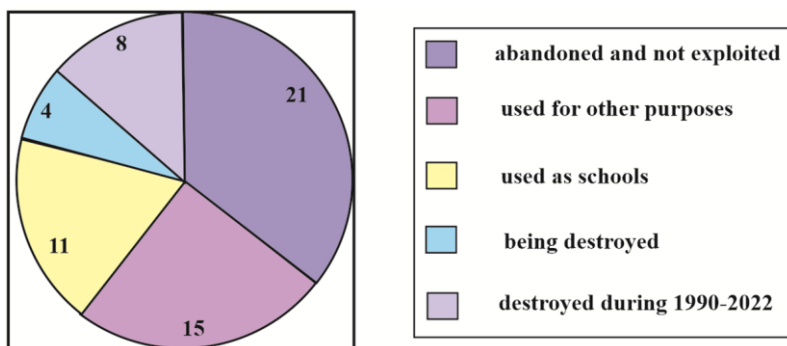


Fig. 9. Diagram of modern use of zemstvo school buildings by O. Slastion

The state of preservation of the primary structure and interior elements of the discovered zemstvo schools by Slastion is different. Most of the schools in Lohvytskyi district have not preserved their entrance towers (they were dismantled during the Soviet occupation), at the same time, in most of the school buildings in Chornukhynskyi district, the towers have been preserved, characteristic original folds on the roofs have remained in two buildings. One of the buildings has lost its brick decor due to insulation. In most buildings, the material of the roofs was replaced and, accordingly, their shape was simplified, and the skylight windows on the roofs were destroyed. Only 3 schools have preserved authentic stoves and sliding partitions between classrooms. Some schools by O. Slastion underwent minor re-planning or additions.

The range of new uses of the discovered historical school buildings is quite diverse: a residential building; a library; a cafe; House of Culture; paramedic-midwifery point; auxiliary premises for new school buildings located on the same territory; administrative buildings, monastery cells. Inadmissible types of use leading to the destruction of buildings were also identified: a garage of a motor vehicle enterprise, warehouses and an oil mill.

In general, the unsatisfactory condition of the identified cultural heritage objects, which require immediate measures for their preservation and adaptive reuse, has been determined.

Strategies and directions for preservation of historic buildings of rural schools

Several strategies for the preservation and adaptive reuse of historic school buildings are proposed, the application of which depends on the degree of value and preservation of the buildings. The strategies differ in terms of the subject of protection, methods and means of preserving buildings, for each strategy the objects of its application are defined. Results are presented in Table 1.

Table 1. A brief description of conservation strategies and adaptive reuse of historic rural school buildings

Strategy	The essence of the strategy	The subject of protection and the main nominees	Methods and means of preserving buildings
1	2	3	4
Strategy of memorializing buildings	Strict protection of the object. Creation of a network of open museums or separate museums on the basis of historical school buildings	The subject of protection is the object, its facades and volume-spatial composition, internal structure, all authentic details and elements; - a network of objects located compactly on the territory of Lohvytskyi district. The main objects of the strategy are buildings of I and II categories	1. Museumization of buildings or separate rooms in buildings 2. Physical adaptation: restoration, repair, reproduction of lost elements (entrance towers, decor and form of authentic roofs), conservation and strengthening of structures
Strategy of social integration of buildings	Changing the original function of the building while preserving its authentic form and facades to meet the needs of the local territorial community in cultural and household service facilities	The object of protection is the three-dimensional structure and facades of the building, all preserved authentic details; The main objects of the strategy are II, III category buildings	1. Functional adaptation: changing the function or modifying the use of the building 2. Physical adaptation: restoration of facades, reproduction of lost elements, repair, engineering modernization, strengthening of structures, re-planning. If necessary, reconstruction is possible without changing the appearance of the building. A possible method of reconstruction is facadeism, which preserves the facades, but allows changes to the internal structure of the building
Strategy of active transformation of buildings	Refunctionalization of the building with a possible change in its volume-spatial solution, internal structure and external form	The subject of protection is the facades and all preserved authentic elements of the building. The main objects of the strategy are III, IV category buildings	1. Functional adaptation: changing the function of the building 2. Physical adaptation: repair, engineering modernization, re-planning, strengthening of structures, reconstruction with extension and superstructure.

The first possible strategy is the strategy of memorializing buildings. Preservation of historical objects and their strict protection becomes a priority. The essence of the strategy is the creation of a network of museums, highlighting the features of public education of the late 19th and early 20th centuries in Ukraine, the history of the guardianship of local zemstvos over the development of schools, the quality of education and the preservation of Ukrainian and local identity.

The second possible strategy is the strategy of social integration (Table 1). Two opposite tasks are combined: the preservation of the historical object and meeting the modern needs of the rural population. The main thing is the functional adaptation of the building and the choice of the optimal function for the building. And the social benefits of repurposing a historic building make

adaptive reuse an important component of the sustainable growth of a local community. Proposals for repurposing three types of school buildings for various purposes with maximum preservation of the original structure were made using the modeling method: an exhibition and museum complex, a universal community centre, an institution of primary medical care, administrative buildings etc. As a result of modeling, a high degree of adaptability of the buildings to the new use, which was laid in the school projects by the architect from the very beginning, was revealed. It is also established that the use of buildings of these categories for housing is undesirable, since the preservation and maintenance of facades requires significant funds, which residents do not always have, and the redevelopment of large premises for housing radically changes the internal spatial structure of the building. The use of buildings as universal centres of communities is considered promising, which is relevant not only for the current state, but also returns to the historical roots of buildings that, according to the architect's idea, were designed as centres of public activity. The variable use of different types of zemstvo schools is presented in Figure 10.

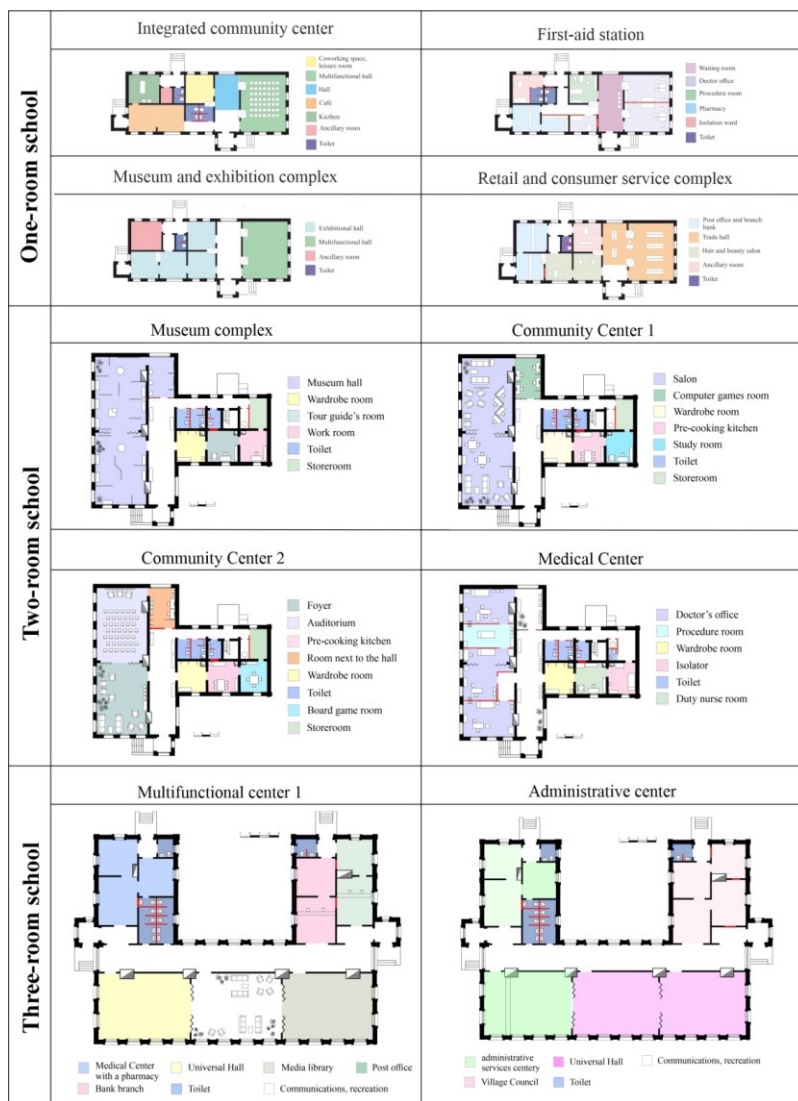


Fig. 10. Variants of adaptive reuse of zemstvo school buildings. New partitions and planning interventions are shown in red. Authors drawing.

The third strategy is the strategy of active transformation (Table 1). The priority is to meet the needs of the population in cultural and household services, compliance with modern requirements for buildings. At the same time, the historical building is respected, all its authentic elements are preserved, but, if necessary, changes to the spatial and internal structure of the building are possible. The use of buildings for industrial production and warehouses is defined as inadmissible.

The choice of a new building function is determined by the following factors:

- socio-economic (number and age structure of the population, dynamics of population outflow, needs of the community in cultural and household services, specialization and role of the settlement in the system of rural resettlement, economic opportunities of the community etc.);
- urban planning (location in the structure of the settlement, area of the land plot, transport and pedestrian accessibility, natural conditions and features of the landscape etc.);
- architectural (category of historical value, degree of preservation, type of school building, its physical condition, features of the planning decision, constructive decision and materials of constructive elements etc.).

All strategies require additional studies of objects, development of appropriate protection and project documentation, as well as mandatory involvement of the public in the preservation of buildings and determination of their new function.

Conclusions

Retrospective analysis of the history of school construction in rural areas of Ukraine made it possible to determine the architectural and planning features of historical school buildings of the late 19th and early 20th centuries and their socio-cultural value, to reveal the diversity of stylistic directions in the architecture of buildings and individual approaches to the development of the school network in each of the zemstvos of Poltava province. For the first time, historical school buildings and their network in the rural areas of Poltava region were discovered, they were considered as objects of cultural heritage for the first time, and their classification was carried out according to the signs of historical and cultural value and degree of preservation.

The socio-cultural value of buildings is determined by their embodiment of three progressive ideas of their time: technical innovations, social democracy and local autonomy. The objects of outstanding historical value are the buildings of the school network of Lohvytskyi Zemstvo by architect Opanas Slastion in the style of Ukrainian national romanticism, which were built during 1912-1917. The architecture of the zemstvo schools by O. Slastion in the socio-cultural context acted as a spatial manifestation of national and regional identity, as a materialized metaphor of the nation's identity and ability to create its own traditions.

The socio-economic, urban planning and architectural factors affecting the choice of a new function of historical buildings have been identified and classified.

As a result of the research, strategies for the preservation and adaptive reuse of historic school buildings are proposed depending on their historical and cultural value: the strategy of memorialization of buildings, the strategy of social integration and the strategy of active transformation of buildings. All strategies are based on respect for the historical building and regulate its use and degree of architectural interventions.

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