

FUNCTIONAL AND SPATIAL TRANSFORMATIONS OF EDUCATIONAL UNITS IN THE AREA OF THE CARPATHIAN FOOTHILLS

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Abstract

The area of the Carpathian Foothills is a culturally interesting region with many small settlement structures. The specificity of spatial values was influenced by the natural and cultural environment as well as the historically accumulating multicultural heritage, an important element of which is the architecture with roots anchored in Galicia. After the first partition of Poland in 1772, the territory of south-eastern Poland became part of the Kingdom of Galicia and Lodomeria. Another political decision strengthened the architectural influence in this area of the Carpathians. The next two partitions and political changes resulting from the decisions of the Congress of Vienna outlined the final shape of Galicia's borders.

Keywords: *Multicultural heritage; Natural and cultural environment; Galicia; Lodomeria*

Introduction

The area of the Carpathian Foothills is a culturally interesting region with many small settlement structures. The specificity of spatial values was influenced by the natural and cultural environment as well as the historically accumulating multicultural heritage, an important element of which is the architecture with roots anchored in Galicia. After the first partition of Poland in 1772, the territories of south-eastern Poland became part of the Kingdom of Galicia and Lodomeria. Another political decision strengthened the architectural influence in this area

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of the Carpathians. The next two partitions and political changes resulting from the decisions of the Congress of Vienna outlined the final shape of Galicia's borders.

When characterising the architecture of this period, it should be noted that the typification of architecture had a major impact on the appearance of public service facilities [1]. During the discussed period, facilities such as stations, schools, courts, theatres, and other public facilities received common features characteristic of the area of Western Galicia, which stretched from Krakow to Lviv. Common rules for the construction of buildings and design requirements were set out in construction acts during the partition period (the acts of 1877, 1885, 1892, and 1903 provided guidelines on hygienic and sanitary fire conditions and construction guidelines), and the location of service facilities was also not accidental [2]. This is illustrated by a fragment of the document referring to the architectural form of public buildings: "Important buildings were built along the main streets, while industrial buildings and storerooms were located deep in the courtyard. The height of the erected buildings could not exceed four storeys, with the high ground floor considered a separate storey. Two- and three-story buildings could be built where their height did not exceed the width of the street. On the other hand, with partially enclosed streets, newly erected buildings could not be lower than the existing ones [3]. Tall, four-story buildings could be erected along the streets and squares for which the City Council decided on such a scale of development" (Act of 1885) [2].

Of course, inevitable but also characteristic of this area were the influences of the activities of local architects, creators, and even builders, who enriched the objects with their own architectural details. Many of them came from the so-called Lviv school of architecture [4, 5].

In small settlement systems located in the area of the Carpathian Foothills, schools were often one of the two objects (the other was a sacral building) significant in the structure and crystallising the spatial arrangement. In smaller towns and villages, schools were often wooden and covered with a gable roof, which was slightly larger than residential buildings. In towns, thanks to wealthy founders, brick schools were sometimes built in villages. They were most often made of brick, usually based on a typical design and location indicated by regulations.

Related to the general problems of the Science of building conservation and their valorization as cultural heritage assets, in correlation with the nature and state of conservation of structural components, these aspects have been much studied by [6-10],

In this sense, in addition to the presentation of the most important buildings in the area under study, their state of conservation is presented and analysed through the interaction between these buildings of rural architecture and the surrounding environment, taking into account the footprint left and the historical context.

Materials and Metod

Research on architectural objects located in the Carpathian region has been conducted by a team of employees of the Cracow and Rzeszów Universities of Technology for years. Recently¹, a team of a dozen or so people analysed the architectural values of school buildings, including in this region of Poland. The research included both a field vision, a query of archival materials, including literature, building plans, and historical photos. A pattern and form

¹ In connection with the implementation of the grant by the Cracow University of Technology, a number of scientific works are being developed and co-financed from the state budget under the programme of the Minister of Education and Science under the name "Science for Society", project number Nds/544609/2021/2022, co-financing amount PLN 1,637,268.00, total value of the project PLN 1,647,268.00.

characteristic of the discussed region were sought, referring to the factors determining the type of architecture. In the research, particular attention was paid to the typology of school facilities and the teaching and functioning opportunities they offered. The current state of preservation of selected facilities was also examined in relation to their adaptation (and the possibility of adaptation) and formal and legal conservation protection.

Environmental and landscape context

Settlement systems are inscribed in the Carpathian landscape, becoming part of its panoramas. Larger school buildings complement the silhouettes, giving them a closed character.

The area is spread between the river valleys, which are the right tributaries of the Vistula. The landscape consists of low hills cut gently by stream valleys. In the area of the foothills as well as in the entire part of the Polish Carpathians that occupy the south-eastern part of Poland, along our entire border with Slovakia and part of the border with Ukraine, there are architectural gems scattered throughout the area in the form of manor and palace complexes and sacral buildings [11, 12].

Among the larger urban centres should be mentioned Przemyśl, Sanok Gorlice, Myślenice, Bielsko Biała, Krosno, Jasło and many others that are smaller but significant for the history of the region, such as Tuchów, Limanowa, Ciężkowice, Biecz, Grybów Lesko, Dynów, Brzozów, and many others. The settlement structure of the foothills is fragmented and dispersed. The settlement systems of the villages themselves are also important in many cases² are scattered (Fig. 1).

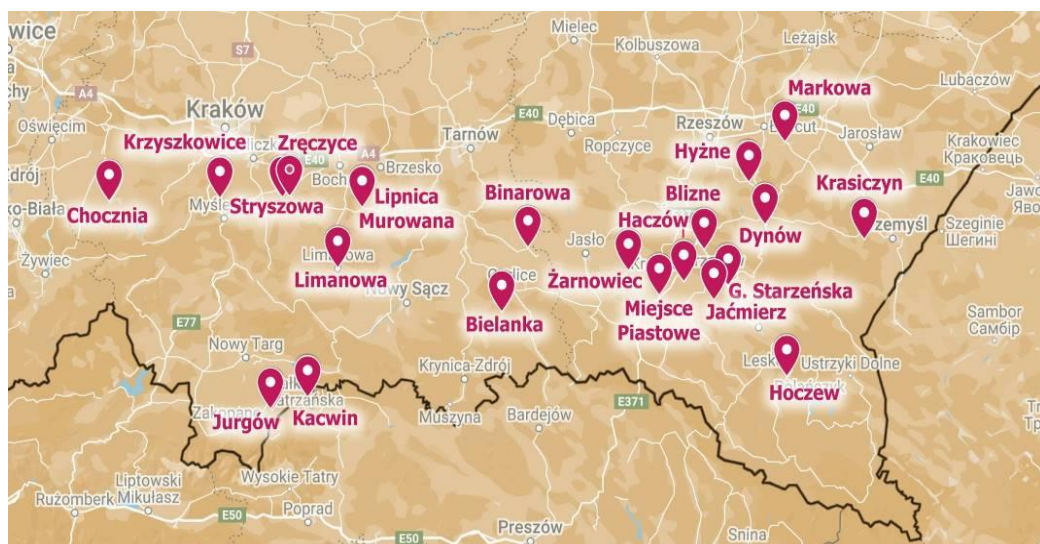


Fig. 1. Map of the distribution of selected educational units with different functions and historical values

Historical context

Care over education during the partitions was exercised in western Galicia by the Free Organising Committee and, from 1797, by the West Galician Governorate³. The lowest level of power was the district office, headed by the staroste. In the whole of western Galicia, education

² The area of the Ciężkowicko-Roznowski Landscape Park and the Brzanka Range Landscape Park.

³ <http://www.regionalista.pl/szkolnictwo.htm>; S. Majewski, *Kształtowanie się systemu zarządzania oświatą w Polsce od XVIII do XX wieku (zarys historyczny)*, *Studia Pedagogiczne. Problemy Społeczne, Edukacyjne i Artystyczne*, **14**, 2003, pp. 169-205.

was based on a three-stage system⁴ (Tables 1 and 2). Elementary education was in the most complicated situation⁵ to which the Austrian authorities did not attach much importance, elementary schools were most often located in buildings funded by landowners or existing buildings adapted for this purpose. The regulations of the school authorities stated that "elementary schools are to propagate the initial, more or less necessary knowledge among the people of the lower class"⁶ Elementary schools were most often located in old one-story buildings, usually had a classroom with housing facilities for the teacher (teaching in elementary schools was usually carried out by one teacher) teacher's desk. They were often single-class schools, divided into male and female schools, rarely co-educational. In terms of language, education was also inconsistent, although for the most part these were schools where teaching was conducted in Polish. However, in the discussed area, it was also the language of instruction in the Przemyśl district, out of 60 schools, there were 33 schools with Ukrainian and 5 with German. in Rzeszów, all 67 schools taught in Polish.

Table 1. List of the organisations of folk schools in Western Galicia in the school year 1870–1871 given in the reports of the National School Council on the state of public education in the country in the years 1870–1872
<https://rep.up.krakow.pl/xmlui/bitstream/handle/11716/3782/16--Szkolnictwo-ludowe--Tabaka.pdf?sequence=1>

l.p.	school district	Number of communes in the district	Number of 4-grade folk schools
1.	Nowy Sącz	301	87
2.	Bochnia	315	72
3.	Tarnów	360	86
4.	Jasło	205	71
5.	Sanok	347	71
6.	Rzeszów	364	67
7.	Jarosław	275	102
8.	Przemyśl	218	60
Razem		2385	616

Table 2. List of the organisation of folk schools in Western Galicia in the school year 1870–1871 given in the reports of the National School Council on the state of public education in the country in the years 1870–1872
<https://rep.up.krakow.pl/xmlui/bitstream/handle/11716/3782/16--Szkolnictwo-ludowe--Tabaka.pdf?sequence=1>

l.p.	school district	Number of communes in the district
9.	Kraków miasto	45,0%
10.	Kraków okręg	24,8%
11.	Wadowice	16,9%
12.	Nowy Sącz	22,2%
13.	Bochnia	15,5%
14.	Tarnów	18,5%
15.	Jasło	13,1%
16.	Sanok	12,3%
17.	Rzeszów	10,2%
18.	Jarosław	17,1%

⁴ <http://www.regionalista.pl/szkolnictwo.htm>; S. Majewski, *Kształtowanie się systemu zarządzania oświatą w Polsce od XVIII do XX wieku (zarys historyczny)*, **Studia Pedagogiczne. Problemy Społeczne, Edukacyjne i Artystyczne**, **14**, 2003, pp. 169-205.

⁵ In the literature on the subject, you can find many definitions of primary school. Terms such as elementary school, trivial school, and real school refer to the same level of education but differ in the teaching model, occupation, and time period.

⁶ As above.

19.	Przemyśl	13,2%
	Razem	16,5%

The lowest level of power was the district office, headed by the staroste. In the whole of western Galicia, education was based on a three-stage system. Elementary education was in the most complicated situation⁷ to which the Austrian authorities did not attach much importance, elementary schools were most often located in buildings funded by landowners or existing buildings adapted for this purpose.

The regulations of the school authorities stated that "elementary schools are to propagate the initial, more or less necessary knowledge among the people of the lower class"⁸ Elementary schools were most often located in old one-story buildings, usually had a classroom with housing facilities for the teacher (teaching in elementary schools was usually carried out by one teacher) teacher's desk. They were often single-class schools, divided into male and female schools, rarely co-educational. In terms of language, education was also inconsistent, although for the most part these were schools where teaching was conducted in Polish. However, in the discussed area, it was also the language of instruction in the Przemyśl district, out of 60 schools, there were 33 schools with Ukrainian and 5 with German. in Rzeszów, all 67 schools taught in Polish.

Results and discussion

After Poland regained independence and a uniform education system was created, emphasis was placed on its dissemination at the primary level, declaring the fight against illiteracy⁹.

The organisation of schools rested with the communes, which were obliged to provide buildings for this purpose. It was assumed that students should travel no more than 3km to the nearest school. Primary schools were to be established in towns where the number of children in three successive years was at least 40¹⁰. Before the outbreak of World War II, about 90% of children attended school¹¹. The worst situation was, of course, in the Eastern Borderlands. At the beginning of independence, only 33% of children started education there; in the 1930s, 80% was reached.

It is from the period before 1939 that the wooden relics of educational facilities come from. Few of them have retained their original appearance. Not much is protected by law¹² or

⁷ In the literature on the subject, you can find many definitions of primary school. Terms such as elementary school, trivial school, and real school refer to the same level of education but differ in the teaching model, occupation, and time period.

⁸ As above.

⁹ On February 7, 1919, Józef Piłsudski issued a decree on compulsory schooling, which was initially to cover only the former Kingdom of Poland. It introduced seven-year elementary schools and made school compulsory for children aged 7 to 14. At the same time, this obligation did not have to be implemented in state schools; individual education or in private schools was allowed. The curricula of home and private education, however, were to be adapted to the curricula of the public school, and the knowledge of students was to be checked by means of special examinations supervised by the educational inspector. <https://niepodlegla.gov.pl/o-niepodleglej/edukacja-w-ii-rzeczypospolitej/>.

¹⁰ If there were no children of the appropriate age in a given locality, an educational institution could be organised in cooperation with another locality. <https://niepodlegla.gov.pl/o-niepodleglej/edukacja-w-ii-rzeczypospolitej/>.

¹¹ The worst situation was, of course, in the Eastern Borderlands. At the beginning of independence, only 33% of children started education there; in the 1930s, 80% was reached.

¹² Outside large cities, it is less than ten in the Małopolskie voivodship.

located in the Municipal Register of Monuments. The first post-war school facilities in the area. The first objects of educational institutions in the Polish People's Republic, i.e., the period after World War II, were built in 1945. The program on which education was based was the "Guidelines for the organisation of public elementary schools in 1944/1945"¹³. The teaching system changed, which influenced the shape of the then constructed facilities. The implemented educational system covered the youngest age group for which separate facilities were created - kindergartens. The pre-war system did not distinguish a pre-school group. The new requirement was also included in state documents. It also included an element of accessibility to basic services, which include education¹⁴. The isochrones of comfortable access were defined in relation to the ergonomics of users depending on age. Also, the minimum size of the pre-school and school plots was specified, providing the necessary area for outdoor educational activities.

Education at that time included 8 years of primary school, 4 years of secondary school, and 5 years of uniform studies. In the years 1947-1949, there was a development of vocational education related to the implementation of the six-year plan¹⁵.

The effects of changes in the education system and the emphasis placed on the popularisation of education forced a new shape for educational facilities. During this period, schools popularly known as "thousand-year-old schools" were established after the announcement in 1958 of¹⁶ postulate that the anniversary of the millennium of the Polish state will be celebrated with the construction of a thousand schools throughout the country. This concept was confirmed two months later at the 7th Plenum of the Central Committee of the Polish United Workers' Party. As a result of the action "Construction of Schools of Monuments of the Millennium of the Polish State" in that period, 1,423 schools were established¹⁷ of a similar repetitive architectural form with little adaptation to the surroundings and local conditions (Figs. 2 and 3).



Fig. 2. Primary School in Bezmiechowa Dolna



Fig. 3. Complex of Construction and Architectural Schools in Tarnowskie Góry

¹³ <https://olsztyn.ap.gov.pl/lekcja-archiwalna-szkolnictwo-w-prl-u>.

¹⁴ In the "Urban Normative" in force from 1954-1989, a regulatory act shaping space and housing in this period.

¹⁵ Plan for Economic Development and Building the Foundations of Socialism 1950–55, economic plan, adopted July 21, 1950; it assumed priority for heavy industry and the collectivization of agriculture.

¹⁶ By the First Secretary of the Party (PZPR) ruling in Poland at that time, Władysław Gomułka.

¹⁷ https://pl.wikipedia.org/wiki/Lista_szk%C3%B3%C5%82_tysi%C4%85ciececia.

“Most schools of the millennium were built according to the assumptions of modernist architecture, which had not been used so widely in Poland before. In many places, these schools were the first buildings in this style. The new school buildings were distinguished by flat roofs, well-lit rooms, and a clearly accentuated space for recreation outside the building”¹⁸.




During the next years of socialism, newly built educational facilities were maintained with similar aesthetics¹⁹. Only the scale of the facility was variable depending on the expected number of students. Generalising after Dąbrowska-Milewska (2017), it can be indicated that "when drawing up spatial development plans for residential areas, the following should be taken into account: nurseries for 0.3% of the population, kindergartens for 3% of residents, primary schools for at least 6%, and junior high schools for no less than 3% of the population"²⁰.

Contemporary educational construction in Poland is very diverse as a result of changing trends and clashing architectural trends. School buildings must be in line with the planning assumptions, just like local plans or issued decisions on building and spatial development conditions that regulate the form and body of the building.

Binding media

The following list presents the state of preservation, current functions, and threats to historical educational facilities in the area of the Carpathian Foothills (Table 3). Only a few of them gained a "second life" with a new function. Most of the buildings are deteriorating and doomed to demolition [13–21].

Table 3. Based on a list of 19th and 20th century schools in the area of the Carpathian Foothills (own study)

1. School name, Location, [former function], register/record	Architectural description	State of preservation, current function
Photos of the object	Historical map	Ortophotomap
<p>1. Zręczycze, commune of Gdów, Lesser Poland Voivodeship [Primary school]</p> <p>1</p>  <p>Source 1: author's photo</p>	<p>2. In good working condition. A one-story building with a usable attic, made of brick on a cruciform plan with a gable roof. Covered with ceramic tiles. Ridge system</p> 	<p>3. In good technical condition, now social housing</p> 

¹⁸ https://pl.wikipedia.org/wiki/Szko%C5%82a_tysi%C4%85clecia

¹⁹ <https://dzieje.pl/artykułyhistoryczne/tysiāclatki-maja-50-lat>; K. Wałaszewski Tysiąc szkół na Tysiąclecie: Szkoły Tysiąclecia – architektura, propaganda, polityka, Księży Młyn Dom Wydawniczy, 2018. ISBN 978-83-7729-463-5

²⁰ G. Dąbrowska-Milewska, *Standardy urbanistyczne dla terenów mieszkaniowych –wybrane zagadnienia* [w:] Architecturae et Artibus - 1/2010 str.18

2 1. Lipnica Murowana, Lipnica Murowana commune, Lesser Poland [Trivial School], reg. no. A-1190/4 of February 3, 2010

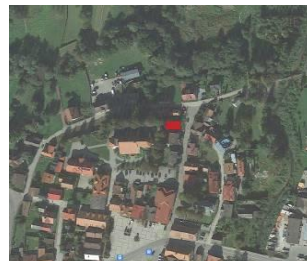


Source 2: author's photo

2. A one-story building on a rectangular plan, wooden on a high foundation with a gable roof "covered with shingles", Gable layout



3. In good technical condition, now the Regional Chamber



3 1. Biecz, Biecz commune, Lesser Poland [People's School]



Source 3: ppastic.pl

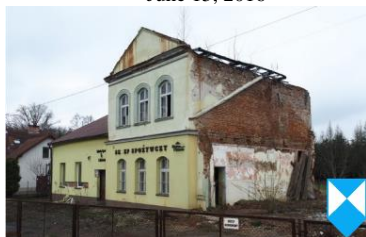
2. Brick building, partly plastered. The left one-story wing with a roof covered with corrugated sheet metal. The right floor with a gable roof covered with standing seam sheet metal. Ridge system



3. In good technical condition, the building is currently unused



4 1. Krzyszkowice, Myslenice commune, Lesser Poland [Primary school], registration number A-1397/M of June 15, 2016



Source 1: ppastic.pl

2. Brick building, partly plastered. The left one-story wing with a roof covered with corrugated sheet metal. The right storey with a gable roof covered with standing seam sheet. Non-existent one-story right wing. Ridge system



3. In poor technical condition, the building is currently unused



5 1. Stryżowa, Gdow commune, Lesser Poland [Primary school]

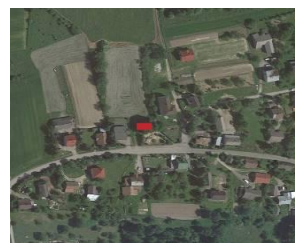


Source 2: d-art.ppastic.pl

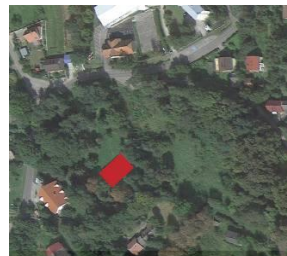
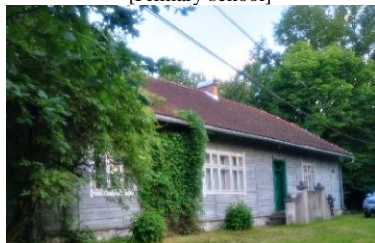
2. A one-story wooden building with a gable roof. On a raised foundation. The roof is covered with cement tiles. Ridge system



3. After renovation in good technical condition, now the Regional Chamber



- 6 1. Hands, Gdow commune, Lesser Poland [Primary school]
 2. A one-story wooden building with a gable roof. Roof covered with ceramic tiles Asymmetric. Ridge system
 3. Under renovation, now private property



Source 3: fot. autor

- 7 1. Dynów, Subcarpathian [People's School], registration number A-795 of February 21, 1995
 2. A two-storey brick building with a hipped roof covered with tiles. Reusable attic. Gable layout
 3. In good technical condition, currently the building of the municipal office



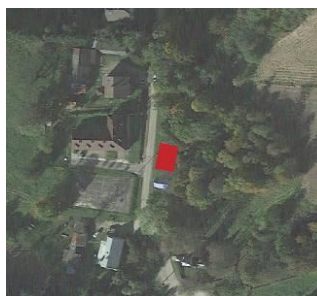
Source 4: fot. Autor

- 8 1. Jurgow, Bukowina Tatrzańska commune, Lesser Poland [People's School]
 2. A large one-story wooden building with a usable attic. A gable roof with protruding porches and illuminated with swallows, covered with flat sheet metal. Ridge system
 3. After general renovation, now a primary school



Source 5: spjurgow.edu.pl

- 9 1. Bielanka, Gorlice commune, Lesser Poland [Lemko School], registration number A-359 of November 11, 1983
 2. A small one-story wooden building with a gable gable roof, standing seam sheet. Canopy over the entrance. Ridge system.
 3. In poor technical condition, currently the Museum of Lemko Crafts them. Stefan Czerhoniak



Source 6: polskaniezwykla.pl

10	<p>1. Limanowa, Limanowska commune, Lesser Poland [Music school] registration number A-511 of August 14, 1987</p>	<p>2. Brick building with plastered stone. erected on the plan of the letter L, two-bay, one-story with an arch detail. It is covered with a gable roof and a hipped roof. Ridge system.</p>	<p>3. In good technical condition, currently the State Music School of the 1st degree named after Grażyna Bacewicz</p>
			
	<p>Source 7: dioblina.eu</p>		
11	<p>1. Kacwin, Łapsze Niżne commune, Lesser Poland [School], registration number A-1282/M of November 04, 2011</p>	<p>2. A wooden plastered object on a rectangular plan, with a symmetrical façade covered with a hipped shingle roof. Ridge system</p>	<p>3. In good technical condition, currently a common room and the Regional Chamber</p>
			
	<p>Source 8: google maps</p>		
12	<p>1. Chocznia, Wadowice commune, Lesser Poland [School], registration number A-1582/M of March 22, 2021</p>	<p>2. A two-story brick building on a rectangular plan with a hip roof with a protruding, accentuated entrance. A historicizing object with an architectural detail. Gable layout</p>	<p>3. Under renovation, the building is currently unused</p>
			
	<p>Source 9: google maps</p>		
13	<p>1. Grabownica Starzeńska commune of Brzozów, Subcarpathian [Blanket], Reg. No. A-172/2007 of January 2, 2007</p>	<p>2. A one-story wooden building on a rectangular plan, symmetrical, with a shingled roof, with a brick annex from the side of the back room. Ridge system</p>	<p>3. In good technical condition, now a museum</p>
			
	<p>Source 13. fot. Autor</p>		

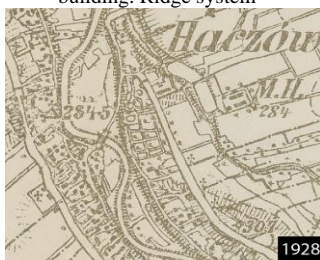
1. Haczów, Haczów commune, Subcarpathian [primary school], registration number A-90 of February 15, 1986

14



Source 10: fotopolska.eu

2. A two-storey symmetrical brick building on a rectangular plan with a hipped roof covered with sheet metal. Historicizing architecture. A new school wing was added to the building. Ridge system



3. In good technical condition, now an elementary school building



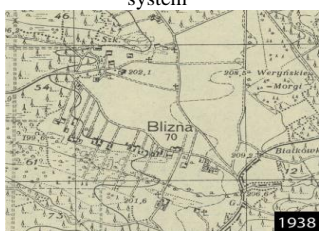
1. Blizne, commune of Jasienica Rosielna, Subcarpathian [Organistówka], registration number A-329 of March 20, 1995

15



Source 15: fot. Autor

2. A one-story wooden building on a rectangular plan, symmetrical, with a shingled roof, with an entrance marked by a porch. Ridge system



3. In good technical condition, now the Tourist Office



1. Zarnowiec, Jedlicze commune, Subcarpathian [People's School], Reg.no. A-34 of April 29, 1983

16



Source 16: fot. Autor

2. A symmetrical one-story wooden L-shaped building with a shingled roof. Ridge system



3. In good technical condition, now the Folk School Museum



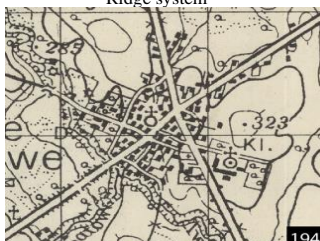
1. Piast Place, Municipality of Miejsce Piastowe, Subcarpathian [School], registration number A-159 of August 2, 1989

17

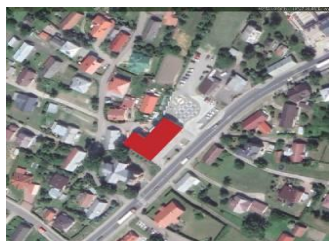



Source 17: fot. Autor

2. A two-storey building made of brick on the L-shaped plan, with a hipped roof with pediments, covered with standing seam sheet metal. Reusable attic with roof windows. Rich architectural detail. Ridge system



3. In good technical condition, now the Municipal Office



<p>18</p> <p>1. Hoczew, Lesko commune, Subcarpathian [school], Reg. No. Reg. No.: A-11 of August 30, 1999</p>  <p>Source 11: zabytek.pl</p>	<p>2. A one-story wooden building on a rectangular plan, symmetrical, with a roof re-covered with sheet metal</p> 	<p>3. In poor technical condition, currently private property</p> 
<p>19</p> <p>1. Markowa, Markowa commune, Subcarpathian [School],</p>  <p>Source 19: fot. Autor</p>	<p>2. A one-story wooden building on a rectangular plan, symmetrical, with a tiled roof with a marked porch and central swallow lighting in the attic. Layout unknown - object moved</p> <div data-bbox="564 746 830 839" style="border: 1px solid black; padding: 5px; text-align: center;"> <p>No historical map - object moved to open-air museum</p> </div>	<p>3. In good technical condition, now an open-air museum</p> 
<p>20</p> <p>1. Krasiczyn, gmina Krasiczyn, Podkarpackie [Dawna Szkoła Powszechna]</p>  <p>Source 12: szkolnictwo.pl</p>	<p>2. A two-story brick building on a rectangular plan with a non-usable attic of a compact shape, symmetrical, historicizing roof covered with sheet metal, hipped. Ridge system</p> 	<p>3. In good technical condition, now a primary school</p> 
<p>21</p> <p>1. Hyżne, Hyżne commune, Subcarpathian [People's School], registration number A-359 of August 21, 1989</p>  <p>Source 13: https://www.google.com/maps</p>	<p>2. A two-storey brick building on a rectangular plan with a non-usable attic with a dilapidated block connected to the rebuilt part of the northern part. – western, symmetrical, historicizing hip roof covered with metal tiles. Ridge system</p> 	<p>3. In good technical condition, now private property</p> 

- | | | | |
|----|--|--|---|
| 22 | <p>1. Jaćmierz, Zarszyn commune, Subcarpathian [Elementary School], registration number A-217 of August 10, 2007</p> | <p>2. A brick building on a rectangular plan with annexes, two-storey with a non-usable attic with a dilapidated shape, connected to the rebuilt part of the northern part. – western, symmetrical, historicizing gable roof with pediments, covered with a hipped standing seam sheet. Ridge system</p> | <p>3. In good technical condition, currently a kindergarten</p> |
|----|--|--|---|



Source 14: polskaniezwykla.pl



The above list presents the state of preservation, current functions, and threats to historical educational facilities in the area of the Carpathian Foothills. Only a few of them gained a "second life" with a new function. Most of the buildings are deteriorating and doomed to demolition [8-16].

Good practices in creating educational spaces in areas of significant cultural heritage in Europe

The history of education in Poland is complicated due to historical changes. The development of educational units was interrupted by partitions and wars and marked by socialist trends that did not respect historical values, associating them with a lack of social equality. Today, designing public facilities is an art that we learn over time, using the functional and spatial patterns of Western Europe and the world, where cultural heritage has always been a superior value. An excellent example of respect for historic structures is the British primary school in KirkMichael (Figs. 4 and 5). Its sculpted form refers to the proportions of the existing residential structures while also preserving the angles of the roofs.

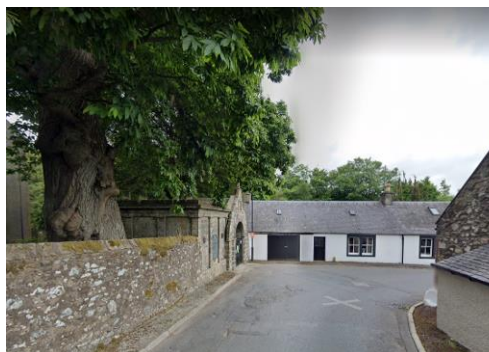


Fig. 4. The surroundings and spatial and landscape context of kirkmichael primary school. Picture by Google Streetview



Fig. 5. Kirkmichael Primary School / Holmes Miller Author: Andrew Lee
https://www.archdaily.com/570044/kirkmichael-primary-school-holmes-miller/546eb6f9e58ece1d3600012a-2706_kirkmichael_ps_8-jpg?next_project=no

From the outside, the Kirkmichael school resembles several interconnected and parallel blocks, segments with traditional roofs. Wooden facades and gable roofs refer to the rural climate. From the side of the inner courtyard, the segments are arranged in a stepped arrangement, with each corner ending with a double-sided window with an exit from the classroom to the outside area. On the opposite side, in the place of the main entrance, the rhythm of the segments is broken by an additional, diagonally located administration wing. Thanks to such a break in the cubature, in addition to the dynamic value introduced, it was also possible to create an entrance square. The entire facility is single storey, but the height of the rooms has been increased by the open space under the sloping roofs.

Another inspiration may be the functional arrangement of interconnected segments separating the public zone from the private area of the school, thus securing the playground and recreational space. Each segment contains classroom space and common space. The rooms are not separated by doors, and you can walk freely between the segments. Thanks to the use of a segmental arrangement, with their shift relative to each other, privacy was maintained in the classrooms without the need to separate the entire room.

Another inspiration for conservation activities in the field of educational facilities can be the example of a historic school building, which currently serves as the social centre of the village of Geldemer Lüllingen. meeting places (Figs. 6 and 7). The new meeting centre is available free of charge to all smaller thematic societies and has so far been well received.



Fig. 6. „Alte Schule“ Lüllingen https://www.agrobusiness-niederrhein.de/scripts/php/imagescript/image.php?src=https://www.agrobusiness-niederrhein.de/uploads/NEU-Agrobusiness-Niederrhein/Deckblatt_Flyer_Alte_Schule.JPG

Fig. 7. Modern integrated school in the neighborhood - <http://heidedorf-luellingen.com/wp-content/uploads/2019/04/L-28-2-rgb-1024x681.jpg>

The meeting centre "Alte Schule Lüllingen" performs a culture-forming function by integrating the community. The project of adapting the building to current regulations and the new function was sponsored and coordinated by Verein "Natur- und Heimatverein Lüllingen e.V." The school in Lüllingen already existed in the 17th century. The building itself dates from 1925²¹ and it operated until 1970. After this period, the old building was used by the volunteer fire brigade, clubs, and the church association. Caritas used an extension built in 1958 as a holiday home for the disabled and seminar rooms (Figs. 8 and 9).

²¹ <http://heidedorf-luellingen.com/alte-schule-luellingen/>



Fig. 8. International Grammar School in Ultimo, New South Wales – design by Allen Jack+Cottier – Australia
https://www.e-architect.com/images/jpgs/sydney/kerrie_murphy_building_a041012_m2.jpg author : Michael Nicholson



Fig. 9. International Grammar School - 2012 End of Year Works
<https://www.greenpointgroup.com.au/projects/education/item/64-international-grammar-school-2012-end-of-year-works> Author: Greenpoint Construction Group Pty Ltd

A different approach to the issue is presented by the school building (The Kerrie Murphy Building of The International Grammar School in Ultimo), located in Ultimo, a suburb of Sydney, Australia. In this case, the continuation of the educational function and the need for these areas decided that the extension of the school received a modern form with intriguing details. Finishing materials such as brick and glass emphasise the historical references to the existing building and correspond with it in full respect for history, offering new possibilities.

The expansion of the historic school building, carried out in close cooperation with the conservator of monuments, resulted in a project that harmoniously fits into the protected historic area of the village, respecting its identity. The materials used in particular refer to the tradition of the place, and the layout of the buildings allows for the functional improvement of the facility.

Conclusions

The list of representative school buildings from the period before 1939 in the selected territorial area indicates a large variety of state of preservation, architectural form, and secondary functions assigned to them in modern times.

The condition of the majority is satisfactory, enabling use. Schools in Biecz, Bielanka, Chocznia, and Jaćmierz are in poor technical condition. Apart from the school in Bielanka, these are relatively large (compared to other examined objects) brick schools, the renovation of which would require significant financial resources.

The location of the former schools in the context of the functional and spatial structure of the village is central. The location of the former schools in the core of the settlement unit is important for the secondary function, which is often city-forming and is an important integration node for the place and often the region. A very important element accompanying the buildings of former schools are the public spaces created around them. The modern function is mostly of public utility. The new functions of the former schools are primarily school (Jurgów, Limanowa, Haczów, Krasiczyn, Hyne) and cultural (e.g., Regional Chamber or Community Centre) (Lipnica Murowana, Stryżowa, Kacwin, Żarnowiec, Rudnik n. Place Piastowe, Gawłuszowice, Ulanów). Relatively few buildings are privately owned. Private buildings have a commercial function (Krzyszczowice), residential function (Zrczyce), a religious service (Blizne), as well as a hotel (Mszana) or catering (Markowa, Żarnowiec). Some of the buildings are unused (Chocznia, Jaćmierz). The architectural form of the old schools is an archetype of

regional development. This is particularly evident in the case of wooden schools. One of such characteristic objects is the school, which is one of the exhibits of the "Skansen Zagroda" - the museum of the village of Markowa. The open-air museum was funded by the Association of Residents of the Society of Friends of Markowa and is the third architectural complex of this type in Podkarpacie. Former school buildings are attractive properties that are worth using for various functions²². Preserving their often unique and individual values is of great importance not only for their immediate surroundings but also for the scenic relations and the landscape of which they are a part²³. Often, the concept of giving new ones activates the local community²⁴. Founded by the community. Thanks to the involvement of residents and local associations and foundations, former school buildings gain new attractive functions, increasing the competitiveness of the region. An example of such involvement is the former folk school in Binarowa. This building was submitted to the Most the Most Foundation competition, obtaining funding for a model revitalization of the building. The building is to be multifunctional and include a cultural function (a multimedia exhibition hall) and a commercial one, e.g., a restaurant. An important element of the revitalization is the adaptation of the building so that it serves a service role for the residents, which is why one of the proposals is to designate rooms for organising rural meetings and exhibitions of craft traditions of the village, i.e., weaving and blacksmithing.

Analysis of contemporary old functions²⁵ schools, together with the initial assessment of the technical condition, are interesting research materials, the application value of which is very high. Regional development strategies and operational planning documents on a general and local scale indicate the elements of cultural heritage that should be protected. The list of new functions of former schools and their cataloguing will simplify the process of creating development directions for the functional and spatial structure of settlement units. Former schools can become key nodes with the development potential of public utility functions and easily accessible social space.

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²² L.S. Romanova, S.S. Malevich, *Adaptation of historical buildings to modern conditions. Experience of Tomsk Restoration School*, Vestnik of Tomsk State University of Architecture and Building (English version appendix), 1, 2014, pp. 5-13.

²³ L. Zheng, X. Huang, *Reconstruction Design of Urban Buildings in Historical Environment*. In: **2020 International Conference on Intelligent Transportation, Big Data & Smart City (ICITBS)**, IEEE, 2020. pp. 323-326.

²⁴ E. Harwood, *England's schools: history, architecture and adaptation*, Historic England, 2015.; S. Aleixo, S. *Change and Adaptation: Historic School Buildings and the impact of Conservation on Cultural Significance*, In: **Educational Architecture-Education, Heritage, Challenges. Conference Proceedings**. 2019. pp. 6-8.

²⁵G. Ashworth *Planowanie dziedzictwa*. Międzynarodowe Centrum Kultury. 2015

References

- [1] E. Weclawowicz-Bilska, M. Wdowiarz-Bilska, E. Králová, M. Vaščák, Y. Kryvoruchko, *Historical timber health resort architecture. Contemporary condition and state of conservation*, **International Journal of Conservation Science**, **13**(2), 2022, pp. 351-366.
- [2] O. Pekarczuk, **Typologia budynków Lwowa 2 połowy XIX w.** Zeszyty Historyczne Muzeum PK 1/ 2018 (2) rok 2, Kraków 2018, pp. 7-29.
- [3] Z. Tabaka, *Szkolnictwo ludowe w Galicji Zachodniej u progu ery autonomicznej*, **Rocznik Naukowo-Dydaktyczny**, Z. 36, Prace Historyczne 5, 1970, pp. 223-238.
- [4] * * *, <https://www.polityka.pl/pomocnikhistoryczny/1612023,1,lwowska-szkola-architektury.read>, <https://culture.pl/pl/artukul/dzieci-lwowskiej-szkoly-architektury>.
- [5] S. Aleixo, *Change and Adaptation: Historic School Buildings and the impact of Conservation on Cultural Significance*, **Educational Architecture-Education, Heritage, Challenges. Conference Proceedings**, 2019. pp. 6-8.
- [6] O. Florescu, I.C.A. Sandu, P. Spiridon-Ursu, I. Sandu, *Integrative participatory conservation of museum artefacts. theoretical and practical aspects*, **International Journal of Conservation Science**, **11**(1), 2020, pp. 109-116.
- [7] P. Spiridon, I. Sandu, L. Stratulat, *The conscious deterioration and degradation of the cultural heritage*, **International Journal of Conservation Science**, **8**(11), 2017, pp. 81-88.
- [8] I. Sandu, *Modern Aspects Regarding the Conservation of Cultural Heritage Artifacts*, **International Journal of Conservation Science**, **13**(4), 2022, pp. 1187-1208.
- [9] I.C.A. Sandu, P. Spiridon, I. Sandu, *Current studies and approaches in the field of cultural heritage conservation science. Harmonising the terminology in an interdisciplinary context*, **International Journal of Conservation Science**, **7**(3), 2016, pp. 591-606.
- [10] P. Spiridon, I. Sandu, *Muselife of the life of public*, **International Journal of Conservation Science**, **7**(1), 2016, pp. 87-92.
- [11] F. Bujak, **Galicya. Kraj, ludność, społeczeństwo, rolnictwo**. T. 1, Lwów, 1908, pp. 48.
- [12] A. Gajdek, B. Krupa, A. Nowak, *What is an attractive rural landscape? Differences in the social and expert assessment of the changes in the rural landscape of the Carpathian region in Poland with regard to the need of its protection*. **Journal of Mountain Science**, **20**(2), 2023, pp. 501-515.
- [13] S. Walasek, *Budownictwo szkół elementarnych (ludowych) w Galicji i Królestwie Polskim na łamach czasopism przełomu XIX i XX wieku*; [w:] **Biuletyn Historii Wychowania** **2015/33** str, Wrocław, 2015, pp. 41-56.
- [14] H. Hrehorowicz – Gaber, *Evaluation of development and modification of selected forms of settlements under the influence of tourism in the Romanian Carpathians*, **Zeszyty Naukowe Politechniki Krakowskiej**, Kraków, 2016.
- [15] J. Kaliński, **Polityka gospodarcza Polski w latach 1948–1956**, Warszawa, 1987.
- [16] D. Lewandowska, *Księgi metrykalne i akta parafii i gmin różnych wyznań i obrządków (Ormianie, Autokefaliczna Cerkiew Prawosławna, Baptyści, Mennonici, Ewangeliczni Chryścijanie) z terenów tzw. zabużańskich Inwentarz zespołu PL*, 1 456 Oprac. D. Lewandowska, **Archiwum Główne Akt Dawnych**, dostęp 2023-05-10.
- [17] J. Łach, I. Bojko, *Zabudowa polaniarska jako wyróżnik w badaniach nad typologią i genezą krajobrazów pasterskich polsko-ukraińskiej części Karpat Zewnętrznych*, **TEKA Komisji Polsko-Ukraińskich Związków Kulturowych**, **5**(13), 2019, pp. pp.207-221.

- [18] K. Wałaszewski, *Tysiąc szkół na Tysiąclecie: Szkoły Tysiąclecia – architektura, propaganda, polityka*, Księży Młyn Dom Wydawniczy, 2018.
- [19] E. Węclawowicz-Bilska, M. Wdowiarz-Bilska, E. Králová, M. Vaščák, Y. Kryvoruchko, *Historical timber health resort architecture. Contemporary condition and state of conservation*. **International Journal of Conservation Science**, **13**(2), 2022, pp. 351-366.
- [20] * * *, **Zarządzenie nr 9 Ministra Gospodarki Terenowej i Ochrony Środowiska z dnia 29 stycznia 1974 r. w sprawie wskaźników i wytycznych dla terenów mieszkaniowych w miastach**, Dz. Bud. nr 2 z dnia 2 lutego 1974 r., poz. 2.
- [21] H. Žarnovičan, J. Kollár, V. Falťan, F. Petrovič, M. Gábor, *Management and land cover changes in the Western Carpathian traditional orchard landscape in the period after 1948*. **Agronomy**, **11**(2), 2021, Article Number: 366.
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