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DEVELOPMENT OF FARM BUILDINGS IN THE LANDSCAPE OF POLISH SPISZ ON THE EXAMPLE OF TRYBSZ VILLAGE

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ABSTRACT

A characteristic feature of the region Polish Spisz is specific street layouts in its villages and architecturally unique farm buildings. The aim of the paper was to present the development of farm buildings associated with social and economic changes farm buildings in the Polish part of Spisz over the last half of the century, based on the example of the village of Trybsz. On the basis of field inspections and satellite images, for selected farms a questionnaire form was developed. Thanks to the obtained data, it was possible to establish the intended use of farm buildings, year of their construction, materials used and their technical condition. It was found that the unique architectural character of village Trybsz is related mainly to farm buildings. The rural landscape of this village is dominated both in number and form, and its appearance reflects the dynamic evolution of the landscape and local architecture caused by the agricultural transformations that have taken place over the last 50 years. Spisz farm buildings with galleries are an original form of folk architecture, which has been shaped by historic and modern economic factors. This form gives farm utility buildings and whole farms an attractive appeal, additionally emphasised by numerous contemporary architectural modifications.

Key words: farm buildings, folk architecture, cultural landscape, land development

INTRODUCTION

Spisz is a historical and ethnographic land situated in Western Carpathians on the territories of Slovakia and Poland, with mainly Polish, Slovak and German settlements. Until early 12th century, Spisz belonged to Poland, but in 1108 it passed under the rule of Hungary. Spisz was reclaimed by Poland in 1412 and remained under its rule until 1769, when it was taken over by Austria. In 1920, the north-western part of Spisz was assigned to Poland, while the border between the Polish and Slovak parts was finally established in 1924. Until 1939, Spisz was governed by Hungarian families, whereas during World War II it was incorporated into Slovakia in its entirety. After various historical events, in 1945 the north-eastern part of Spisz of 195 km^2 was included within the borders of Poland. Twelve thousand residents now live in the 14 villages and three communes of Spisz (Figiel, 1984; Trajdos, 1995).

Polish Spisz is a region with beautiful mountain landscapes (Spisz Valley, High and Belianske Tatras, Spisz Foothills and partially Pieniny) and rich fauna and flora. A characteristic feature of the region is specific street layouts in its villages and architecturally unique farm buildings (Figiel, 1984). The unique architectural character of Polish Spisz villages originates from their farm buildings. They are the dominant feature both in terms of their number and form, while their appearance reflects dynamic evolution of the landscape and local architecture caused by agricultural transformations which took place over the last 50 years (Fig. 1).

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Fig. 1. Middle part of the village of Trybsz in Spisz viewed from the north (photo by P. Herbut)

Polish Spisz is a unique, distinctive region where one can still find remains of past divisions resulting from its historic incorporation into Hungary. After World War II, the period of "building" socialism in Poland was characterised by intensification of agriculture (Bucała-Hrabia, 2017). In the Polish Spisz area, livestock production, mainly cattle and sheep, was the dominant area of activity until the end of the 1980s; the livestock unit ratio exceeded 1 LU per 1 ha of agricultural land, being one of the highest ratios in Poland (Górz, 2003).

Fig. 2. Map of Polish Spisz with the village of Trybsz (source: https://pl.wikipedia.org/wiki/Polski_Spisz)

The aim of the paper was to present the development of farm buildings associated with social and economic changes in the Polish part of Spisz over the last 50 years, based on the example of the village of Trybsz.

MATERIAL AND METHODS

The study was carried out between 2007 and 2010 in the village of Trybsz, Łapsze Niżne Commune, Nowy Targ County, Małopolska Province – which is one of the 14 villages located on the territory of Polish Spisz (Fig. 2).

Investigations addressed land development, farm buildings' architecture and changes in rural landscape. The results of the study were obtained through a survey of farm buildings, literature review, surveys and numerous interviews with native-born residents of the village.

On the basis of field inspections and satellite images (www.geoportal.gov.pl; www.maps.google.com), for selected farms a questionnaire form was developed. It included questions about farm buildings: year of construction, purpose of the building, information about reconstructions, applied construction-material solutions, external dimensions. Questionnaire surveys were conducted on a group of 30 households. Thanks to the obtained data, it was possible to establish the intended use of farm buildings, year of their construction, materials used and their technical condition. The data obtained were verified via real property survey and assessment of the technical condition of the buildings.

Literature research focused mainly on the history of social, economic and political changes in the region in the last 50 years, data on animal and plant production and general construction characteristics of the Spisz region.

RESULTS

Land development

Residential plots in the Trybsz village are relatively small in terms of their surface area, with densely-packed buildings. The results obtained indicate that, in Trybsz, approximately 80% of residential plots located in the historic part of the village have a plot ratio of about 0.8. Long and narrow plots with continuous rows of buildings along plot borders are a characteristic feature of land development in Trybsz village. On the farmyard side, buildings usually vary in width. Quite often at the back of residential plots, on the side of crop fields, a drive-through barn is situated, stretching across the entire width of the plot (Fig. 3).

An important parameter which determines the arrangement and use of a residential plot is its width. The analysis of maps on the geoportal showed that, in the village of Trybsz, only 38% of residential plots are between 15 and 17 m in width, the others are even narrower. Narrow residential plots and difficult physiographical conditions of mountainous terrains make it necessary to use free forms in the layout of farm buildings. So-called compact developments are the dominant form here, which means that the individual

Fig. 3. A part of Trybsz with farm buildings at the back of residential plots, typical for Spisz villages (photo by P. Herbut)

buildings create a dense complex, while the farmyard is of a high functional importance.

Farm buildings

The fieldwork carried out has shown that, a typical architectural feature of farms in Spisz and in Trybsz village is that even though the buildings are situated adjacent to each other, their roof slopes and overhangs contrast with each other. Roofs may differ not only in their height and slope inclination parameters, but also in their form (pitched and monopitched, symmetric and asymmetric). In addition, sheeting materials usually differ as well (Fig. 4).

As mentioned before, in case of the majority of residential plots there was not enough room to fit spacious barns in which all hay or straw could be stored together with remains from previous years. Crop yield gain, mainly achieved thanks to the use of artificial fertilizers and herbicides, is a factor which has shaped not only the development of agricultural production and its focus on cattle and sheep, but it has also had a significant impact on the evolution of agricultural architecture and rural landscape The need to increase storage capacity for hay and straw, while being unable to expand the surface of barns, made it necessary to expand the space of utility attics in farm buildings (Fig. 5).

As shown by the analysis of the results of the research, initially, the average height of livestock buildings with a functional attic was 5.5–6.5 m (Fig. 5a).

Fig. 4. Part of farm buildings in Trybsz, viewed from the south (photo by P. Herbut)

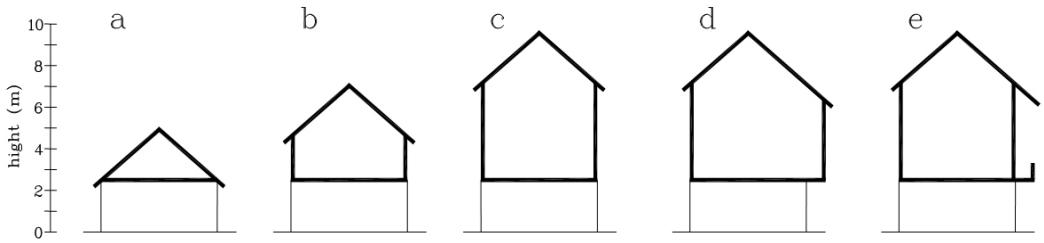

Fig. 5. Increase in the height of farm buildings: a – a building with a utility attic before 1950; b – a building with a low knee wall; c – a building with a high knee wall; d – a building with a high knee wall and an overhanging attic; e – a building with a gallery

The height of farm buildings began to increase in the 1950s. Thanks to elevation of knee walls, the height of buildings increased, thus increasing their storage capacity (Fig. 5b–5e). Currently, around 60% of utility buildings in Spisz are about 10 m in height, which means that they have doubled in size in comparison to the pre-war period (Fig. 6).

When that was not enough, further enlargement of the cubic area was obtained by widening the attic in the cross-section of buildings (Figs. 5d, 5e). Such expansions were usually made by way of a unilateral overhang (of about 1.0–1.2 m) above the livestock building, situated towards the yard (Fig. 7).

Fig. 6. Part of utility developments in Trybsz. In the foreground we can see a low building erected before 1950, while in the back there are more recent buildings with high knee walls (photo by P. Herbut)

Fig. 7. Farmyard in the middle part of Trybsz. Visible overhanging attics over farm buildings (photo by P. Herbut)

That is how arcades used in livestock buildings, characteristic for the region, were created. As shown by the analysis of the results of the research, the share of livestock and storage buildings with such cross-sections is 56.3%. If farm buildings were situated away from the plot's borders at a distance exceeding 0.5 m, an additional attic overhang on both sides of the building would also be constructed to additionally increase the cubic area.

Over time, overhanging attics took the form of a gallery. Interviews with village residents indicated in their opinion that, the lack of functional connections between the livestock building and the barn (at the level of the yard) contributed to the development of galleries. The lack of such connections resulted from traditional construction practices from an area where farm animals, agricultural tools, etc. would sometimes get stolen. Placing doors and gates to the farm on the side of the yard which could be monitored from the windows of the house was an effective safeguard against theft. This trend has survived to this day, despite the fact that it requires increased workload when it comes to transporting feed and bedding through the farmyard. In these circumstances, development of openings in the knee wall of the attic was only logical. Initially, when attics were stocked manually, openings would be made freely. Later, once the attic stocking process had been automated with the use of hay and straw blowers, knee walls usually consisted of two doors. In one of them the blower's pipe was permanently fixed, while the other one was used to enter the attic. Therefore, the main purpose of a gallery was to improve access to the attic. This solution was of a great practical importance because it allowed farmers to choose the right variety of straw or hay for making feed or bedding from varieties placed in different parts of the utility attic of the farm building. In the wall separating the attic from the gallery one could usually find plank doors or openings, the number of which depended on the length of the attic. The gallery could be entered from the yard side using ladder-like stairs through an opening in the floor, sometimes with a trapdoor. The height of the gallery measured at its lowest point, i.e. at the balustrade, was usually 1.7–2.2 m. Whereas on the ground floor level, the attic gallery created an arcade used to store blowers, firewood, dog kennels etc. (Fig. 8).

DISCUSSION

In general, it should be noted that there are a very limited number of scientific publications on a subject similar to the research presented. Most of the studies concern the Podhale and Orava regions. The majority of papers on the Polish Spisz are of ethnographic, tour-

Fig. 8. Farmhouse with a gallery (photo by P. Herbut)

ist or landscape character and, above all, of popular science. For this reason, the presented research subject matter concerning the transformations of farm buildings over the last 50 years is difficult to discuss with the research results of other scientists.

The small size of residential plots and their narrow shape typical for Trybsz village are not only a result of the physiographical conditions, time and location of founding the village or type of agricultural production. Most of all, they were shaped by the historical incorporation of Spisz into Hungary (Skoczek & Cząstka, 1997). The residential building occupied by the plot owners is usually situated on the side of the road, directly adjacent to utility buildings. In older parts of the village, it is common practice to situate buildings either within the plot borders or at the customary distance of 0.5 m from the borders (Borcz, 1984; Bieda, Pijanowski & Herbut, 1999). Individual farm buildings create a dense complex, while the farmyard is of a high functional importance. Its importance is emphasised by the fact that at small agricultural farms with varied production, which is the type of farms found in Spisz, around 75% of all work used to be completed within the farm's borders (Chowaniec, 1964).

Relatively new utility buildings have quite a big share in the farmhouse developments in Trybsz village. This mainly results from the fact that fires were a very frequent occurrence in the villages of Spisz. There were several occasions when fires destroyed wooden farm buildings in large parts of the villages (in the last 50 years: the great fire of Trybsz in 1950; fire in Frydman in 1982; in Niedzica in 1991) (Figiel, 1984). With subsidiary support from the state, villages affected by fires have been renovated, with a partial loss of their traditional architectural features, introducing new construction materials in the process. According to the analysis of study results, first farm buildings with high utility attics appeared back in the 1950s in burnt-out areas of the villages. During reconstruction works, not only was the appearance of farm buildings modified, but above all, numerous variations of roof types and building cross-sections were introduced in order to increase storage capacity. Non-combustible roof coverings such as cement and asbestos-cement products, which back then were the only available roof covering materials, were widely used and replaced laths and shingles almost completely (Fig. 9).

After changes in the political system in 1989, agricultural production in Spisz became uneconomic and therefore was radically limited, taking on the characteristics of organic farming, where production volumes are adapted to the needs of a given household

Fig. 9. The wall of a farm building in Trybsz with a high knee wall and various construction materials used (photo by P. Herbut)

(Bucała & Starkel, 2013). The questionnaire data obtained showed, that many farm buildings were adapted to serve other purposes, becoming, for example, wood dryer rooms, goods storage facilities, craftsman workshops, shops etc.

The compactness of village complexes, despite the surrounding scattered developments and a high level of devastation, is still clearly visible (Steczkowicz & Trojanowski, 1981) – even with the strong influence of Podhale on the regional architecture (affecting mostly residential buildings). Despite foreign Podhale-style structural elements, the scale and character of the developments as a whole and the living regional traditions have been preserved and should be protected both on an urban scale – in the cultural landscape – and on the scale of individual facilities (Bieda & Herbut, 1999; Hernik, 2011). According to Tworkowski and Sikorska (1981), the role of buildings surrounding historical complexes should be to enrich the landscape. However, this should be done with moderation and taking into account natural factors, while referencing old-style solutions (Hełdak & Raszka, 2011; Jaszczak & Hernik, 2012). The results obtained indicate, that in reference to these values, nowadays the wood industry, trade and services in Trybsz are developing, while the technical infrastructure of the village is improving. On the outskirts of the village, agritourism is growing dynamically, with pedestrian, bicycle and horse-riding routes leading to nearby nature reserves, architectural and folk culture monuments, the Czorsztyn lake, Niedzica castle, national parks (Pieniny, Tatras) and new ski stations (Szpara, 2011).

SUMMARY

Trybsz farm buildings with galleries are an original form of folk architecture, which has been shaped by historic and modern economic factors. The development of a new architectural feature, correct in scale and form, is an example that is quite rare in contemporary folk architecture.

Galleries, characteristic for the Polish Spisz region on the example of the village of Trybsz, are a highly-recognised feature. Together with the compact building pattern typical for the region, not only are they embedded in the landscape, but also serve functional purposes. Galleries inspire designers and building craftsmen, and above all investors, to continue the trend in new buildings. Therefore, they are an example of a "living" tradition in folklore architecture.

In future additional analysis should be performed trends in Spisz villages' landscape changes connected with dynamic development of agritourism and the necessity to preserve spatial and architectural farm building systems. Future research should also include more detailed material and construction solutions for farm buildings in other Polish villages of Spisz region.

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ROZWÓJ BUDYNKÓW GOSPODARCZYCH W KRAJOBRAZIE POLSKIEGO SPISZA NA PRZYKŁADZIE WSI TRYBSZ

STRESZCZENIE

Charakterystyczną cechą regionu polskiego Spisza jest specyficzny układ ulic we wsiach i unikalne architektonicznie zabudowania gospodarcze. Celem artykułu było przedstawienie rozwoju zabudowań gospodarczych, związanego ze zmianami społeczno-gospodarczymi w polskiej części Spisza na przestrzeni ostatniego półwiecza na przykładzie wsi Trybsz. Na podstawie badań terenowych i zdjęć satelitarnych opracowano formularz ankiety dla wybranych gospodarstw rolnych. Dzięki uzyskanym danym możliwe było ustalenie przeznaczenia budynków gospodarczych, roku ich budowy, zastosowanych materiałów i stanu technicznego. Stwierdzono, że unikalny charakter architektoniczny wsi Trybsz związany jest głównie z jego zabudową gospodarczą. Krajobraz wiejski tej miejscowości jest zdominowany zarówno pod względem liczebności, jak i formy, a jego wygląd odzwierciedla dynamiczną ewolucję krajobrazu i architektury lokalnej spowodowaną przemianami rolniczymi, które zaszły na przestrzeni ostatnich pięćdziesięciu lat. Spiskie zabudowania gospodarcze z galeriami to oryginalna forma architektury ludowej, ukształtowana przez czynniki historyczne i nowoczesne czynniki ekonomiczne. Forma ta nadaje budynkom gospodarczym i całym gospodarstwom atrakcyjny wygląd, dodatkowo podkreślany licznymi współczesnymi modyfikacjami architektonicznymi.

Słowa kluczowe: budynki gospodarcze, architektura ludowa, krajobraz kulturowy, zagospodarowanie terenu