

TREES AS A PART OF SMALL SACRAL ARCHITECTURE IN THE LIPTOV REGION

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Abstract

Elements of small sacral architecture such as the wayside shrines, chapels, belfries, sculpture of saints, but also crosses represent significant features in the cultural landscape of Slovakia. The article provides an overview of the origin, historical development, typology and meaning of small sacral architecture elements, with a particular focus on their functional and symbolic links with woody plants, especially with the trees that accompany them. Trees are an accompanying element of sacral monuments and, as in the past, as well as today, they contribute to the appearance of these cultural monuments in an urbanized areas or in the landscape. At the municipal or regional level, they create a whole set of small cultural and natural monuments, which as a system has a high value and importance for local communities and potential for local tourism and recreation, as well as for nature and landscape protection. The paper presents new and original results and knowledge obtained from field research of small sacral architecture and the trees that are part of it in the Liptov region, located in the northern part of Slovakia. Trees mapping near small sacral architecture facilities in Liptov took place in 2019-2021 on the territory of 37 Liptov municipalities.

Keywords: landscape architecture, greenery, historical heritage, symbolism

Introduction

Small sacral objects, such as roadside crosses, shrines, chapels, statues of saints, crucifixes, belfries or other typological forms of small sacral objects and other types are integral components of our cultural landscapes and their traditional character and features all over Europe including most Slovak regions (Biľušová and Michalica, 2019; Kristiánová et al., 2020; Tóth et al., 2019; Tóth et al., 2021). They are jewels of Christian cultural landscapes with a significant social value and a legacy of our ancestors' religiosity (Matáková, 2012). Small sacral objects are present at roads and crossroads, on elevated places in the landscape, at the borders between municipalities and their cadastral territories, they dominate squares and street areas, complete the surroundings of churches and chapels, stand out in cemeteries and places of reverence (Kristiánová et al., 2020; Nádaská, 2013).

The surroundings of the oldest sacral buildings in our country (Romanesque and Gothic buildings) had only a flat vegetation structure - a plant cover. The Renaissance brought the planting of one tree to the sacral building. In the later period, two trees were planted to frame the main entrance. Baroque brought to churches the framing of all entrances, the planting of solitary trees, groups of trees, but also avenue plantings lining the access roads. Classicism added trees around the entire perimeter of the sacral building, but at reasonable distances with sufficient living space for each tree (Fusková and Fúška, 2019; Feriancová and Tóth, 2014).

However, they were always deciduous and mainly of domestic origin, from foreign ones that resembled domestic ones. The period at the turn of the 19th and 20th centuries brought a sentimental return to nature and the thickening of stands, while conifers also appeared sporadically in plantings.

Small sacral objects were usually lined with a pair of trees or surrounded by a group of several trees resembling a small grove. Thus, they represented not only significant dominants of the cultural landscape, but also had great religious significance in popular belief. Mainly lime trees were planted near the small sacral objects. It was often a group of 4-6 trees, mostly lindens, more rarely beeches and oaks, which framed the monument, creating a kind of formation of a single pair of monuments: architecture and tree/trees (Tóth, 2015).

Small religious objects were built in landscapes as symbols of Christian culture, especially in Catholic regions (Halajová, 2019; Kyselka, 2014). The Catholic Church had the sole influence on the creation of small sacred buildings in Liptov, except for some bell towers, which were built at the initiative of the Evangelical Church. Under the auspices of the Roman Catholic Church, buildings were built by individuals, associations, municipalities, and local parishes. The quantity and rendering of objects depended on their wealth (Uličný, 2014).

In the 20th century, the Liptov region underwent the most significant change because of political-administrative organization, economic development, and social changes. This is primarily the loss of agricultural land due to the development of industry. 3 cities became the centers of Liptov: Liptovský

Mikuláš, Ružomberok, Liptovský Hrádok. Significant urbanization is taking place. The construction of water management works (Liptovská Mara, Bešeňová, Čierny Váh), which occupied an area of approximately 30 km², had a great influence on the transformation of the landscape. The large-scale construction of transport infrastructure, as well as the enlargement of municipalities, which was related to the growing number of inhabitants, also had an impact (Slivka, 1969; Uličný, 2014).

Sports and recreational activity, construction of ski resorts, and cottage areas had a significant impact on the character of the landscape. There was a transformation of the structure of the country, which was caused by a change in ownership and user rights of agricultural land. It was these interventions in the landscape that caused the disappearance of some compositional relationships, the views and views from the small sacral objects that stood in exposed places were degraded. Now, one of the most significant processes involved in the transformation of the landscape is, on the other hand, suburbanization, which, under the influence of the spatial expansion of the city, brings about the transformation of Liptov's rural landscape (Bartl, 1985; Slivka, 1969; Uličný, 2014).

Material and methods

The small sacral architecture mapping took place in the region of Liptov, in the north of Slovakia. It occupies the territory bordered on the east by the villages of Štrba and Liptovská Teplička and on the west by the village of Stankovany. Currently, the Liptov region corresponds to the Ružomberok and Liptovský Mikuláš districts. From a geomorphological point of view, the Liptovská Kotlina is bordered from the north by the Western Tatras, the Chočské vrchy, from the southwest by Veľká Fatra, and from the south by the Low Tatras.

In the Liptov region, 98 small sacral objects were mapped. The objects were mapped in the Liptovský Mikuláš and Ružomberok districts during the years 2019-2021.

The following data were evaluated:

- Serial number
- Cultural region
- Cadastral area
- Municipality, street/road
- GPS
- Spatial context – rural zone/ town residential area
- Type of a monument: cross, wayside shrine, chapel, statue, bell tower
- Accompanying greenery: specification: deciduous trees, coniferous trees, number of accompanying trees, composition, taxon, trunk, circumference (cm), age defined by Šimek (2001), crown width (m), height of tree (m), landscape-architectural value (Machovec, 1987), health condition and degree of damage (Juhásová, 1999), notes (the accompanying greenery was inventoried according to the methodology of Machovec (1982), Juhásova (1990) and Pejchal (1997) published in Supuka, Feriancová et al. (2008))
- Object's dimensional parameters, the material the small sacral object was made of was specified
- The year of origin
- Current state of the monument: range of damage was determined by the visual analysis in the following scale: (0. well maintained / reconstruction, damage 0%; 1. damage 1–10%; 2. damage 11–25%; 3. damage 26–60%; 4. damage 60–69%; 5. objects significantly damaged 70–100%).
- Photo documentation, general view of the object, surrounding woody plants and spatial context with interesting views and perspectives

Results

Trees and greenery are often an integral part of small sacral architecture. The existence of small sacred buildings is often pointed out from a distance by tall trees that are naturally connected to small sacred buildings. Part of the assessment of the small sacral objects was a detailed inventory of the vegetation around the buildings. Trees were evaluated at 29 small sacral objects, where the vegetation was directly related to the small sacral object and a direct relationship was observed between greenery and an element of small sacral architecture. Fifty-five trees of eight species were identified by the inventory (Tab. 1, Tab. 2). Roadside crosses are the most common small sacral objects in the observed area of Liptov region which included trees. Trees were found near 15 crosses, 12 chapels and 2 bell towers.



Fig. 1: A chapel with *Tilia cordata* in cadastral area Kvačany (Photo by Marek Hus, 2020).



Fig. 2: A group of trees near the small sacral objects in Liptovský Hrádok (rural area) and in Liptovské Kľačany (town residential area) (Photo by Marek Hus, 2020).

Tab. 1: List of tree species found near elements of small sacral architecture and their location within the cadastral territory.

taxón	number of trees	town residential area	rural area
<i>Acer pseudoplatanus</i> L.	1	1	
<i>Betula pendula</i> Roth	2	2	
<i>Fraxinus excelsior</i> L.	5		5
<i>Picea pungens</i> Engelm.	2	2	
<i>Populus nigra</i> L.	2		2
<i>Thuja occidentalis</i> L.	6	6	
<i>Tilia cordata</i> Mill.	37	23	14

At 69 objects of small sacral architecture, the trees were not identified, which would be directly related to small sacral architecture. No trees were planted near the objects, but bushes or herbaceous vegetation were identified for some. The reason for the absence of vegetation management could be that trees were never planted near them, or small sacral architecture did not require adjustment (Matáková, 2011). In another case, the object was part of the existing growth and further modification would be unjustified, or the trees were cut down due to their unsatisfactory condition.

56 objects without vegetation management were identified in town residential area. However, even at these objects, the lawn was modified, or regularly removed overgrown trees. It is interesting to note that there is no vegetation near the bell towers. Trees did not fulfil a symbolic function with bell towers,

as they were often purpose-built structures whose main task was to announce events. 13 small sacral objects are already situated in existing vegetation, the object has become part of vegetation management (alleys, accompanying road vegetation, trees in municipal parks). Of these, 4 objects were in the forest.

Deciduous tree species predominate in the case of small sacral objects - 47 trees, 8 conifers were inventoried (Fig. 4). The most frequently occurring taxon is *Tilia cordata* (38%) (Fig. 1). In the range of species used, mainly autochthonous tree species are used (85%).



Fig. 3: Solitary trees (*Tilia cordata*) in the vicinity of the chapels in Ľubel'a and Liptovská Štiavnica (Photo by Marek Hus, 2020).

As part of the tree inventory, the landscape-architectural value of the trees was determined. It equally considers the overall health and vitality of the trees, its spatial-compositional value. Of the 55 inventoried trees, 23 individuals have a value of 4 (42%), a value of 3 - 25 trees (45%), a value of 2 - 7 trees (13%). The analysis shows that 47 trees growing near Small sacral objects are very valuable or of average value, healthy, only slightly damaged, free of diseases and pests. As part of the inventory, the age stage of the trees was also determined (Paganová, 2019). From the point of view of the representation of the individual age stages in the assessed trees, the age stage is dominated by mature trees - 42 trees, young trees - 12 trees and senescent trees - 1 piece.

The health status of the trees was evaluated according to the methodology of Juhásová (1990). 2 trees were identified without damage. 11 trees were evaluated in category 1 (damage in the range of 1-10%). 31 trees were classified in category 2 (damage in the range of 11-25%). 9 trees were identified with moderate damage - category 3 (damage in the range of 26-60%), 2 trees were with severe damage (damage in the range of 61-69%) - category 4.

Species with symbolic value (linden, ash, birch, maple, poplar) were found in some of the mapped elements of the small sacral architecture (Sobotka, 1879). The most frequently occurring linden (*Tilia cordata*) was planted at 22 objects. Important factors that were observed during mapping were the number and compositional location of trees in the vicinity of the small sacral architecture. At 4 objects, trees were in groups (3 or more trees) (Fig. 2). At the chapel in Dovalovo (Liptovský Hrádok), three trees *Tilia cordata*, five trees *Fraxinus excelsior*, which frame the chapel on two sides, were inventoried. Woods form the forecourt of the chapel. At the cross in Liptovský Kľačany, we recorded four trees *Tilia cordata* Mill., which are in the corners of the metal fence. Near the bell tower in Liptovský Kľačany, there are 3 *Tilia cordata* trees, which together with the bell tower and the church of St. Elizabeth's compositional and cultural-historical connection. Group of two trees of *Populus nigra* and 1 individual of *Tilia cordata* is in the vicinity of the cross in Liptovské Matiašovce at the border of three cadastres, the place is called the triple boundary. Each tree is in a different cadastre - Liptovské Matiašovce, Liptovská Sielnica, Beňušovce. There are a pair of trees near 12 objects, mostly crosses. In this case, trees line the object from both sides, or are placed behind it. There is one tree at 13 objects (Fig. 3).

no.	municipality	district	localization	object type	material	current state of the monument	<i>Tilia cordata</i>	<i>Thuja occidentalis</i>	<i>Fraxinus excelsior</i>	<i>Betula pendula</i>	<i>Picea pungens</i>	<i>Populus nigra</i>	<i>Acer pseudoplatan us</i>
1	Bešeňová	RK	town residential area	cross	wood	1		1					
2	Dúbrava	LM	town residential area	chapel	brick	1	2						
3	Kvačany	LM	rural area	cross	wood	1	2						
4	Kvačany	LM	rural area	chapel	brick	1	1						
5	Liptovské Kľačany	LM	town residential area	bell tower	brick	1	3						
6	Liptovské Kľačany	LM	rural area	chapel	brick	1	2						
7	Liptovské Kľačany	LM	town residential area	cross	wood	1			2				
8	Liptovské Kľačany	LM	town residential area	cross	metal	2	4						
9	Liptovské Matiašovce	LM	town residential area	chapel	brick	2	1						
10	Liptovské Matiašovce	LM	rural area	cross	wood	0	1					2	
11	Liptovské Sliache	RK	town residential area	chapel	brick	1	1						
12	Liptovské Sliache	RK	town residential area	cross	wood	1	2						
13	Liptovské Sliache	RK	town residential area	cross	wood	0				2			
14	Liptovské Sliache	RK	town residential area	cross	concrete	2	2						
15	Liptovský Hrádok	LM	rural area	chapel	brick	3	3		5				
16	Liptovský Hrádok	LM	town residential area	chapel	brick	1							1
17	Liptovský Hrádok	LM	town residential area	cross	wood	1	1						
18	Liptovský Hrádok	LM	town residential area	chapel	brick	2		1					
19	Liptovský Ján	LM	town residential area	cross	wood	1	1						
20	Liptovský Trnovec	LM	town residential area	chapel	brick	3	1						
21	Lisková	RK	town residential area	chapel	brick	1	2						

22	l'ubeľa	LM	rural area	chapel	brick	1	1	
23	Lučky	RK	town residential area	cross	wood	0	2	
24	Lučky	RK	town residential area	chapel	stone	3		2
25	Partizánska Ľupča	LM	town residential area	cross	wood	1	2	
26	Podtureň	LM	town residential area	bell tower	brick	0	1	
27	Štiavnička	RK	town residential area	cross	wood	0	1	
28	Turk	RK	town residential area	cross	wood	0	1	
29	Východná	LM	rural area	cross	wood	3	2	

Tab. 2: Inventory of small sacral architecture and trees



Fig. 4: Roadside crosses with deciduous and coniferous trees in Východná, Turík and Štiavnička, Liptovský Mikuláš and Ružomberok district (Photo by Marek Hus, 2020).

Conclusion

Trees are a natural part of some small sacral architecture objects in the municipality or in the country. The research was focused on the evaluation of these trees near the objects. A total of 7 types of trees were represented. The most represented species is the small-leaved linden (*Tilia cordata*), especially in the adult and senescence trees. Other autochthonous tree species were rarely represented (*Betula pendula*, *Acer pseudoplatanus*). In some cases, unsuitable species were planted (*Thuja occidentalis*, *Picea pungens*). It is necessary to consider the planting of non-native species, they negatively affect the traditional cultural landscape, its visual character, and aesthetic values. When planting trees in rural areas, especially open landscapes, native tree species should always be preferred.

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Souhrn

Prvky drobné sakrální architektury, jako jsou boží muka, kapličky, zvonice, sochy světců, ale i kříže, představují významné prvky kulturní krajiny Slovenska. Článek podává přehled o vzniku, historickém vývoji, typologii a významu prvků drobné sakrální architektury se zvláštním zřetelem na jejich funkční a symbolické vazby na dřeviny, zejména na stromy, které je doprovázejí. Stromy jsou doprovodným prvkem sakrálních památek a stejně jako v minulosti, tak i dnes se podílejí na vzhledu těchto kulturních památek v urbanizovaném území nebo v krajině. Na obecní či regionální úrovni vytvářejí celý soubor drobných kulturních a přírodních památek, který má jako systém vysokou hodnotu a význam pro místní společenství a potenciál pro místní cestovní ruch a rekreaci i pro ochranu přírody a krajiny. Příspěvek prezentuje nové a originální výsledky a poznatky získané terénním výzkumem drobné sakrální architektury a dřevin, které jsou její součástí, v regionu Liptov, který se nachází v severní části Slovenska. Mapování stromů v blízkosti objektů drobné sakrální architektury na Liptově probíhalo v letech 2019-2021 na území 37 liptovských obcí.

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