

AZ EGYKORI ZÁRTKERTEK TÁJÉRTÉKEI ÉS TÁJKÉPVÉDELMI JELENTŐSÉGE

UNIQUE LANDSCAPE FEATURES AND SIGNIFICANCE OF FORMER ALLOTMENT GARDENS IN THE PROTECTION OF THE VISUAL LANDSCAPE

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ABSZTRAKT

A zártkert egy speciális területhasználati forma, maga a fogalom a szocializmus alatt, az 1960-as évek elején jött létre Magyarországon. Eredetileg azokat a magántulajdonban lévő, kisparcellás, hagyományosan szőlő, gyümölcsös és kert hasznosítású földrészleteket jelölte, amelyek a háztáji gazdálkodás lehetősége mellett hétvégi pihenést biztosítottak tulajdonosaik számára.

A zártkertek túlnyomó része azonban történeti előzményekkel is rendelkezik, a kertés művelés a zártkertté minősítés előtt is létezett. A kialakításuk óta a zártkertek erőteljes funkcióváltozáson mentek keresztül; egy részükön fennmaradt a hagyományos kiskerti gazdálkodás, más részük települési belterületté (lakóterületekké), gyepekké, vagy felhagyott, erdősödő területekké váltak. Az átalakulási, illetve pusztulási folyamat ellenére a zártkert területen még napjainkban is táji értékek hordozói: többé-kevésbé őrzik az ember tudatos tájformáló tevékenységéből fakadó jellemvonásokat, a tájszerkezetet, a természeti értékeket, valamint sok esetben a történeti tájhasználat hagyatékát, a gazdálkodás fennmaradt nyomait. Cikkünk a zártkertek értékességét örökségvédelmi, illetve tájképvédelmi szempontból közelíti meg országos

és mintaterületi vizsgálati szinten. Az elemzés célja a zártkertek szőlőhegyi eredetének, tájképi jelentőségének feltárása és a zártkert egyedi tájértékek bemutatása térinformatikai módszerekkel. A szőlőhegyi eredetre vonatkozó elemzés rámutatott, hogy a szőlőhegyi múlt, mint történeti előzmény a zártkert területen összterületnek jelentős részén kimutatható. Az egyedi tájértékek az országos átlagot csaknem ötszörösen meghaladó sűrűséggel fordulnak elő. Az ország szőlő- és gyümölcsstermesztéshez kapcsolódó egyedi tájértékeinek harmada a zártkert területeken koncentrálódik. A kutatás eredményeiből ugyanakkor arra is fény derült, hogy a zártkertek kultúr-történeti értékeinek felmértsége korántsem tekinthető teljeskörűnek, a valóságban sokkal több érték (pincék, horhosok, kőtámfalak) jelenléte feltételezhető a zártkerteken, mint amennyi az egyedi tájérték-adatbázisban szerepel. A zártkertek tájképvédelmi jelentőségét támasztja alá, hogy a tájképvédelmi övezetbe sorolt zártkert foltok területi aránya a tájképvédelmi területek országos területi arányának közel másfélszerese.

Kulcsszavak: zártkert, táji örökség, egyedi tájérték, tájképvédelem, történeti szőlőhegy, tájváltozás ©

ABSTRACT

The term “allotment garden” is a special form of land use, developed in Hungary under socialism in the early 1960s. It originally referred to privately-owned small parcels of land, traditionally vineyards, orchards and gardens, which offered their owners weekend recreation in addition to the opportunity of backyard farming.

However, the vast majority of allotment gardens have a historical background, with horticulture having existed before gardens were classified as allotment gardens. Since their creation, allotment gardens have undergone a significant change of function. Some have been preserved for traditional small-scale garden farming, while others were integrated into settlements as residential areas, or grassy, neglected, afforested areas. Despite the process of transformation and degradation, allotment gardens still today contain various landscape features: they more or less preserve the characteristics of human conscious landscape forming activities, landscape pattern, natural heritage and valuable visual features of the landscape, and in many cases the heritage of historic land use and remained traces of farming. This article approaches the value of allotment gardens from a heritage and visual landscape protection viewpoint, at national and sample area level. The aim of the study is to explore vineyard origins and landscape significance of allotment gardens and to present the unique landscape features of allotment gardens applying geographic information methods. Furthermore, the results of the analysis of the vineyard origins analysis revealed that the vineyard past as a historical antecedent can be detected in a significant part of the total area of allotment gardens. The results of the study indicated that unique landscape features occur at a density almost five times higher than the national average in the allotment garden areas. One third of the country's unique landscape features related to vine and fruit production are concentrated in these areas. However, the research also revealed that the survey on allotment garden landscape features of cultural and historical significance is far from being complete. Presumably, there are many more landscape features (cellars, gorges and retaining walls of stone) in

the allotment gardens than are recorded in the unique landscape feature database.

The significance of allotment gardens in the protection of the visual landscape is confirmed by the fact that the proportion of allotment garden patches classified as zones of visually sensitive landscapes is almost one and a half times the national rate.

Keywords: allotment garden, landscape heritage, unique landscape feature, (visual) landscape protection, historical vineyard, landscape change

1. INTRODUCTION

Today, the allotment garden is no longer a legal institution, but appears as a land classification category on land registry maps and title deeds. The term “allotment garden” came into existence in Hungary under socialism in the early 1960s. [1, 2] Allotment garden is a special form of land use, which originally referred to privately-owned small parcels of land, traditionally vineyards, orchards and gardens, which offered their owners weekend recreation in addition to the possibility of backyard farming.

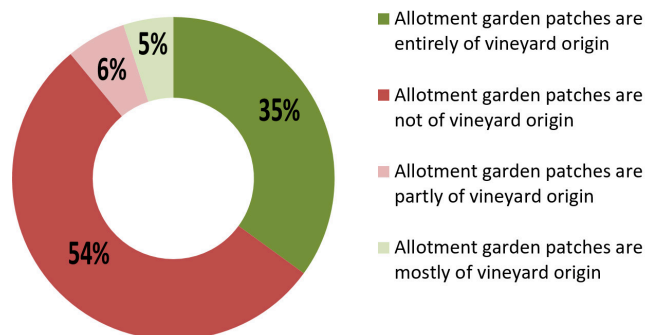
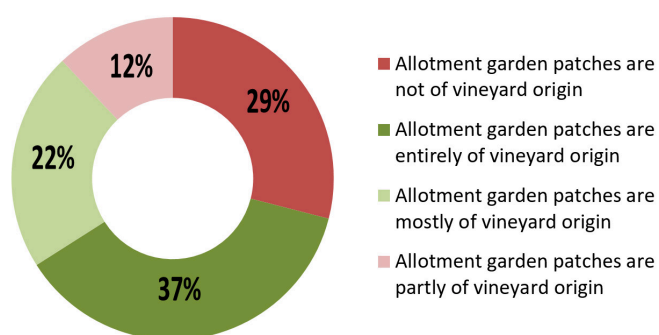
With the change of the Hungarian livestock farming to crop production, most of the gardens were moved outside the villages, adjacent to the fields. Gardens remained on the outskirts of villages and later cities, where vegetable, fruit or vines were grown. The gardens where vines, cabbages or melons were planted, and which later became allotment gardens, were created taking into account the terrain and other conditions, e.g. soil conditions [3].

Since their creation, allotment gardens have undergone a significant change of function. Some have been preserved for traditional small-scale garden farming, while others were integrated into settlements as residential areas, or grassy, neglected, afforested areas [2]. The transforming allotment gardens of settlements, with their distinctive parcel structure and size, form a recognisable landscape segment that is distinct from the residential area. A significant part of the parcels previously classified as allotment gardens are unique, valuable and worthy of

Fig. 1: Distribution of allotment gardens of vineyard origin in the Pilis-Visegrád sample area, by extent

Fig. 2: Distribution of the number of allotment gardens by vineyard origin in the Pilis-Visegrád sample area

Fig. 3: Origins of allotment gardens in the Pilis-Visegrád Hills sample area (based on Second Military Survey)



preservation, but at the same time endangered landscape areas of Hungary (Piroska Pető ex verb.).

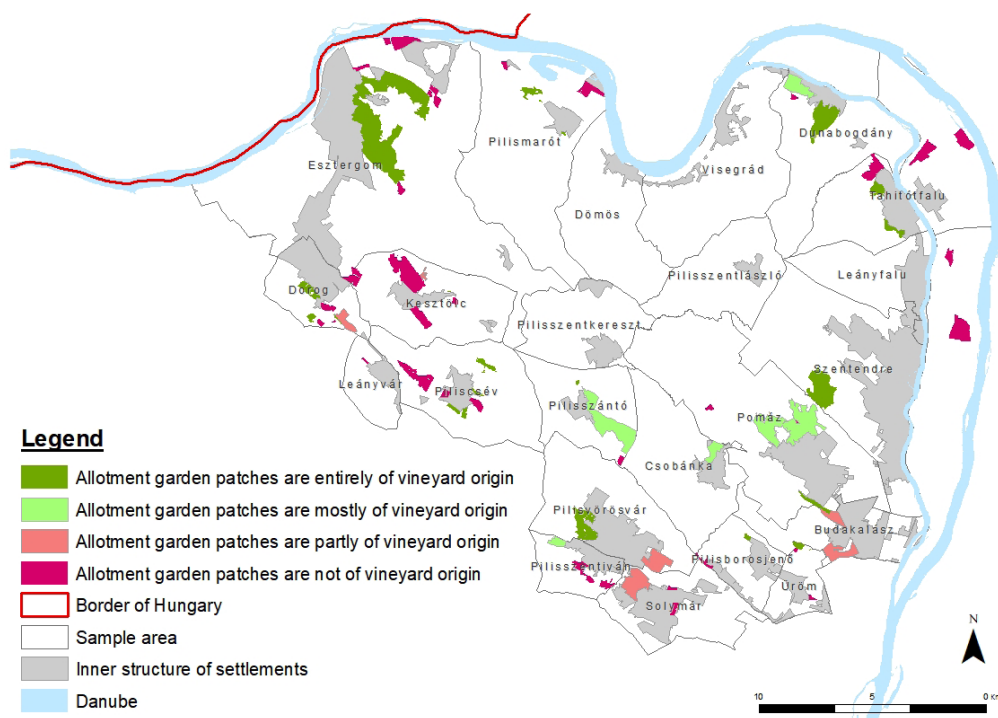
The origins, functions and changes in extent of allotment gardens have been studied by many authors. This study was preceded by a review of the literature. Several national-level studies have been carried out since the early 2000s [1-5, 8-9], typically on the development of allotment gardens, their history, and the direction and quality of their transformation from their creation to the present day.

The differences and similarities between the term of the former vegetable garden, orchard and allotment garden are discussed in Ónodi et. al [3], *"Gardens and gardeners"*. According to Ónodi, the term "allotment garden" is mostly linked to a certain era, so if we are considering the development and potential of former allotment gardens, we need to know the former land use, the main characteristics and the history of these areas before the time allotment gardens evolved. The book also presents a national analysis and sample area research.

Csirszki [4] studies the historical and legal events that directly or indirectly contributed to the development of allotment gardens from a national, but also from a legal-historical perspective. The recently published study aid [5] of the Institute of Landscape Architecture, Urban Planning and Garden Art of MATE primarily analyses and typifies the legal aspects of the construction, urban development and planning of allotment gardens, their change of function and their position within the settlement.

Only the part of the literature [1-9] related to the study of allotment gardens emphasizes the landscape significance and the presence of landscape features. Most of the value-oriented scientific literature [6-7, 10] focuses on the vineyards and wine-growing areas of Lake Balaton with their special character, the historically developed mosaic landscape structure and the unique landscape features, and which areas are to be preserved.

In addition to describing the national situation, Laposa and Pócsi analysed the heritage and status of the allotment gardens in a certain region. While Laposa's [6, 7] name and his works have intertwined with the active advocacy for the preservation of natural and cultural heritage of the vineyards of the Balaton Uplands, and especially Badacsony in particular, and as a productive landscape, Pócsi [8-9] mainly describes the changes and the present situation of the allotment gardens around Szeged and Kecskemét. Laposa's researches shows that the vineyards of the Balaton Uplands depicted on the first military survey map are almost identical to the areas later delimited as allotment gardens [6, 7]. The allotment gardens of the Balaton Uplands were also researched by Balázs Törő, ethnographer at the Dezső Laczkó Museum in Veszprém, and Piroska Pető [10], environmental engineer, primarily by surveying and publishing their architectural, historical and cultural values. Their names are associated with the compilation of the heritage database of several settlements.



The allotment gardens of natural value and their role in the system of protected nature areas have been the subject of our previous studies. Our results have shown that almost a third of the former allotment gardens are nature conservation areas of a general or high priority designation. In many places, there is an accumulation of several categories of protection. However, compared to the national averages, the proportion of protected allotment gardens is lower in most protection categories [1].

This study is the first to discuss the landscape value of allotment garden areas, the distribution of unique landscape features by type, quantity and significance of landscape conservation on a national and sample area scale.

2. MATERIAL AND METHOD

2.1. The study area

The analysis deals with the landscape and cultural and historical significance of allotment gardens on a national and sample area level. Sample area analyses enabled more detailed studies to be carried out, such as the vineyard origin analysis.

There are currently 6495 allotment gardens in Hungary [11] (data from 2011), with a total area of 204,148.05 ha (2.1% of the country's territory). The sample area includes 24 settlements in the Pilis-Visegrád Hills (Figure 3). The settlements include 101 allotment patches, covering a total area of 2935 ha. The size of the allotment garden patches varies considerably (1 - 403 ha).

Among other reasons, the sample area was chosen based on the fact that our previous research on allotment gardens has also investigated the allotment garden patches in this area in terms of other factors [1-2], and the sample area has diverse geographical, natural and environmental characteristics, such as:

- Historical vineyard: Esztergom, Piliscsév
- Lowland: Tahitótfalu
- Upland/mountains, forest: Pilisszentlászló, Csobánka, Pilisszentlélek,
- Mining site: Pilisvörösvár
- Waterfront recreation area: Tahitótfalu, Leányfalu, Dunabogdány, Dömös
- Rural settlement in character: Kesztlőc, Piliscsév, Pilisszentlászló, Pilisszántó
- Urban settlement in character: Esztergom, Szentendre, Pilisvörösvár

The sample area is well representative of the similar areas of the country, including the characteristics of the patches of allotment gardens, located in settlements both inside (17) and outside (7) the Budapest agglomeration.

2.2. Applied geographic information software and datasets

In this study, we use the term “allotment garden” as the location of special outskirts in the Hungarian Land Registry [12]. Based on their geographic extent, these land parcels are displayed as merged, in patches and blocks



on the layer of allotment gardens (data host: Lechner Knowledge Centre), which is the initial geographic data set for our studies. In addition, state base data (national boundary, administrative boundaries, rivers and standing waters) the National Zone of Visually Sensitive Landscapes [13] and the TÉKA cadastre of unique landscape features [14] were used. The geographic information system datasets were analysed in ArcGIS software (ArcMap 10.4.1)

The application of the geographic information system differs for each type of study.

In the *vineyard origin* analysis, based on the Second Military Survey [15], we identified by visual inspection the present-day allotment garden patches and the former cultivation, which either confirmed the existence of wine growing or a different type of cultivation (grassland, plough land, orchard, etc.). The Methods section details the criteria used to develop the categories.

The allotment gardens affected by/intersected with *high priority area of visual landscape significance* were selected in ArcMap (ArcMap 10.4.1), but as there were allotment gardens that were only slightly affected, those gardens that overlapped less than 30% of the layer of

high priority area of visual landscape significance were removed as they were not relevant for the study.

This methodology was applied at both national and sample area level.

The *unique landscape features* were selected for national scale assessment by creating a 5 m buffer zone around the allotment gardens to eliminate field data recording inaccuracy. This extended dataset was then used in the sample area.

2.3. Analytical methods

In the *vineyard origin* analysis, we compared the sample area's allotment garden patches with the map sections of the Second Military Survey of the Habsburg Empire, which was prepared about 180 years ago (1841-1842) [15]. The Second Military Survey is suitable for the analysis as it shows the conditions before the phylloxera epidemic that destroyed a significant part of Hungary's vineyards, and due to its colouring and graphic detail, the patches of wine-growing areas can be easily identified on it, making it suitable for determining vineyard origin. The analysis was carried out in the settlements of the Pilis-Visegrád Hills at sample area level.

Fig. 4: Areas of significant landscape value in the settlement of Hegymagas

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For each patch, the following four categories were developed based on the vine cover (origin):

- *Allotment garden of vineyard origin:* The Second Military Survey identifies the total area of the allotment garden as vineyards (100%)
- *Allotment garden mainly of vineyard origin:* At the time of the Second Military Survey, at least 50% or more of the area of the allotment garden patch was used for wine growing (50-99%),
- *Allotment garden partly of vineyard origin:* At the time of the Second Military Survey, the portion of the allotment garden patch used for wine growing covered less than 50% of the total patch area (1-49%).
- *Allotment garden not of vineyard origin:* At the time of the Second Military Survey, no wine growing occurred in the area of the allotment garden patch; arable land, meadow, pasture, forest or in other use (0%)

In the *analysis concerning the impact of the zone of visually sensitive landscapes*, the dataset for the zone of visually sensitive landscapes [13] and allotment garden areas was compared. We selected the allotment gardens affected by the above-mentioned zone, but excluded those allotment garden patches that were less than 30% covered by this zone category.

The *unique landscape feature analyses* are based on the TÉKA unique landscape features geographic information system database [14]. From the TÉKA data, a 5 m buffer zone was applied at the boundary of the allotment gardens to select the unique landscape features in the allotment areas of the country. The data were then analysed by the main types according to the unique landscape feature classification [16, 17] and then by the distribution of individually constructed variety groups relevant to the subject. The results were then compared with national reference data. The results are summarised in a table by the categories relevant for allotment gardens (Table 1). In order to compare the quantity of unique landscape features per square kilometre (hereafter "density"), the number of unique landscape features per square kilometre was calculated.

3. RESULTS

3.1. Results of the vineyard origin analysis

The aim of the analysis of the origins of allotment gardens origin analysis is to provide data to demonstrate that a significant number part of allotment gardens was established on the areas of several hundred years old small vineyards and orchards that are several hundred years old, and that their small-scale cultivation can therefore be considered as a historical landscape use. The analysis of the vineyard origin analysis was carried out in the sample area, based on the Second Military Survey. The four categories (of vineyard origin, mainly of vineyard origin, partly of vineyard origin, not of vineyard origin) are shown in Figure 1, and are colour-coded to represent the origin of the vineyard patches. The diagrams represent the distribution by number and area of patches in the four categories of the proportion of the sample area by origin.

In terms of the distribution by number of pieces, 54% of the allotment garden patches are not of vineyard origin, 35% are entirely (100%) and a further 11% are partly (mostly or in a smaller portion) related to past wine growing in the sample area.

In terms of extent, the proportion of allotment gardens of vineyard origin is much higher, at 40%, with 21% of them being "mostly" and 11% "partly" involved. Allotment gardens of non-vineyard origin represent about 28% of the total area in the allotments of the sample area. The largest extent of the vineyard-derived allotments is found in the foothill areas of Esztergom, Szentendre and Dunabogdány, while the allotments of non-vineyard originated allotments are found in Dorog, Keszthely, Piliscsév, Pilisszentiván and Solymár.

One of the country's most scenic wine regions, the Balaton Upland, preserve the traces of thousands of years of wine growing. According to Laposa's research [6-7], the vineyards on the First Military Survey are almost identical to the areas later set as allotment gardens. A similar result was found when studying the allotment gardens in the sample area, as the proportion

Table 1: Extent and area ratio of visually sensitive landscapes throughout Hungary of allotment garden areas and the sample area's allotment gardens

Fig. 5: Location of allotment gardens affected by zone of visually sensitive landscapes

Fig. 6: Allotment garden patches in the sample area affected by the zone of visually sensitive landscapes

of those of vineyard origin and mostly of vineyard origin allotments totals reaches 60%.

3.2. Allotment gardens within area of visually sensitive landscapes

We found it important to examine the relationship between the zone of visually sensitive landscapes and the allotment gardens because visually sensitive landscapes in Hungary include areas of natural features, systems and the interaction and change of human activity which have specific aesthetic characteristics of particular importance for the landscape, worthy of conservation [18]. According to our hypothesis, the allotment gardens are, from a landscape viewpoint, among the most scenic areas in the country, for example the valuable allotment gardens of the Balaton Uplands (Figure 4).

According to our results, 59.83% of the total national area of all allotment gardens is covered by area of visually sensitive landscapes, which means they have landscape features to be preserved (Table 1). That is almost one and a half times the national figure. The protected areas are concentrated mainly in the Pilis-Visegrád Hills, in the Bükk, around Tokaj, in the Balaton Uplands, in the Zala Hills and in the Mecsek (Figure 5). 80.6% of the sample area's allotment gardens are in the zone of visually sensitive landscapes (Figure 6).

3.3 Results of the analysis of unique landscape features in allotment garden areas

Quantity and types of unique landscape features in Hungary and in the sample area

Quantitative data and the distribution of unique landscape features by type are summarised in Table 2 for the total area of Hungary and for the country's allotment garden areas and in the sample area.

Of the nearly 12,000 unique features recorded in the TÉKA national database, 12,231 are located in allotments, which is 10.2% of the national total, although the percentage of allotments in the total area of the country is

only 2.1%. The number of unique landscape features per hectare in allotment garden areas is 5.99 per km², while the total number of unique landscape features registered in Hungary is only 1.27 per km² compared to the total area of the country. These findings confirm that there is a significant concentration of unique landscape features in the area of the allotments and that the allotments have a higher density of unique landscape features than the national average.

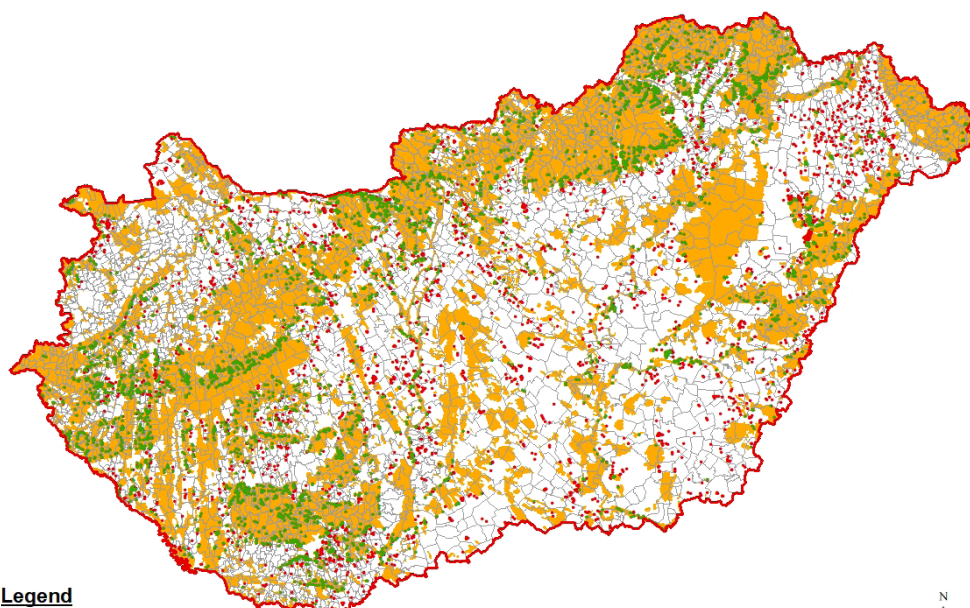
88.4% of the unique landscape features in the allotment garden areas can be classified as vineyards and fruit growing, water and water management and sacred categories. Almost a third of these (31.8%) are related to vine and fruit production, three times the national figure (9.6%). The unique landscape features associated with viticulture define the landscape character of the allotments. Wine cellars (Figure 7), wine cellar rows, press houses, wine houses, which are preserved as traditional folk architecture, and next to them vineyards, abandoned vineyards and orchards (e.g. old plum orchards, almond groves) represent the vast majority of this category in the allotment gardens. In reality, the number of traditional wine cellars and press houses may be much higher than the number in the TÉKA database [14], because in many places – for example in Piliscsév, included in the sample area – the cellar village or cellar row is recorded as a single unique landscape feature, and the cellar buildings are not recorded individually.

The results of the research also pointed out that the number of remains of some unique landscape feature types (e.g. traces of terraced cultivation, retaining walls of stone, sunken vineyard roads, gorges) in the TÉKA database is surprisingly small. In reality, much more can be assumed, and therefore the assessment of the features of the allotment gardens cannot be considered complete.

In the allotment garden areas, the highest percentage of unique landscape features is related to *hydrology and water use and management*, with a total of 44.1%. Most of these are springs, wells, shadoofs, but there are also cisterns, water towers, lakes, watercourses and backwaters. The national proportion of water-related features is much lower, at only 20.1%.

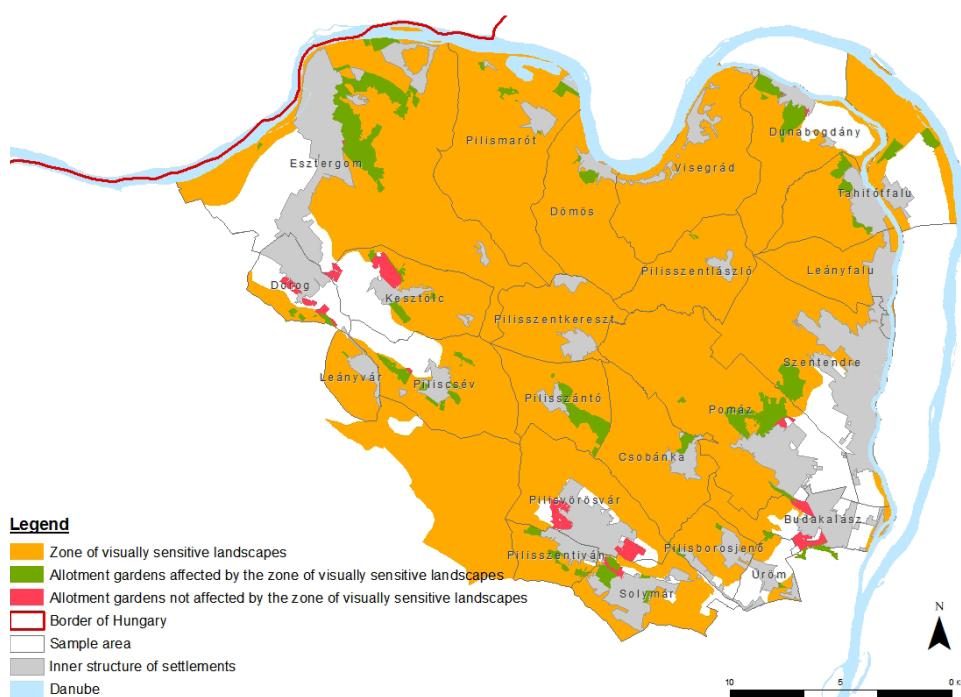
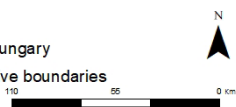


Extent and area ratio of visually sensitive landscapes	All over Hungary		In allotment garden areas of Hungary		In allotment garden areas of the sample area	
	Extent (km ²)	Percent (%)	Extent (km ²)	Percent (%)	Extent (km ²)	Percent (%)
	41,270	44.36	1,221.44	59.83	23.65	80.57



Legend

- Allotment gardens affected by zone of visually sensitive landscapes
- Allotment gardens not affected by zone of visually sensitive landscapes
- Zone of visually sensitive landscapes
- Border of Hungary
- Administrative boundaries



Legend

- Zone of visually sensitive landscapes
- Allotment gardens affected by the zone of visually sensitive landscapes
- Allotment gardens not affected by the zone of visually sensitive landscapes
- Border of Hungary
- Sample area
- Inner structure of settlements
- Danube



Quantity and distribution of unique landscape features by main type/type/subtype		All over Hungary		In allotment garden areas of Hungary	
		Quantity (pcs)	Percent (%)	Quantity (pcs)	Percent (%)
Main type	Unique landscape features classified as cultural-historical main type	104,347	87.9	11,364	92.9
	Unique landscape features classified as natural main type	13,494	11.4	818	6.7
	Unique landscape features classified as (visual) landscape main type	767	0.6	45	0.4
	Unique landscape features uncategorised	144	0.1	4	0.03
	Total number of unique landscape feature	118,752	100	12,231	100
Subtype groups	Unique landscape features related to vine and fruit production	11,356	9.6	3,892	31.8
	Unique landscape features related to hydrology, water use and water management	24,044	20.2	5,392	44.1
	Cultic, sacral unique landscape features.	24,913	21.0	1,534	12.5
	Unique landscape features related to traffic and transport	672	0.6	18	0.1
	Unique landscape features related to everyday life	18,981	16.0	289	2.4
	Tree alleys, tree stands	3,548	3.0	103	0.8
	Unique landscape features of geological significance	9,316	7.8	502	4.1
	Unique landscape features of (visual) landscape	767	0.6	45	0.4
	Unique landscape features of other subtype, not relevant in allotment gardens or occurring in small number	25,155	21.2	456	3.7
	Total number of unique landscape features	118,752	100.0	12,231	100.0
Area (km ²)	93,025 km ² (100%)		2,041 km ² (2.19%)		
Number per km ² (pcs/km ²)	1.2766	–	5.9912	–	

The percentage of sacral landscape features (12.5%) is relatively high in the allotment garden areas. Most of them are crosses and crucifixes, but there are also many churches, church ruins, calvarias, stations, belfries and shrines in the gardens. Small chapels and votive chapels are common (Figure 8), where the farmers asked the patron saints of the vineyard (e.g. St. Orban, St. Donat, St. Vendel) for intervention for a good harvest and favourable weather. Sculptures of vine patron saints (Figure 10), Marian's columns and trees of sacral value with pictures are also characteristic features of the allotment gardens.

Around 500 *features of geological significance* are located in allotments, representing 4.1% of the national total. Among them, the database contains a surprisingly large number of caves, as well as loess walls, cliffs and gorges. In the category of unique landscape features

related to transport, we find roads, bridges and even Roman roads, with a proportion of only 0.1%.

The TÉKA database lists 103 *individual trees, alleys and groups of trees* in allotment garden areas, which represent only 0.8% of the total landscape feature of the allotment gardens. They include, among others, oaks, linden trees (Figure 9), walnut trees, chestnut trees, strawberry trees, old orchards, almond groves, which are the remnants of allotment garden cultivation.

The analysis of the zone of visually sensitive landscapes highlights the landscape significance of the former allotment gardens. Despite this, the proportion of unique landscape features (lookout towers and lookout points, panoramic roads and traditional streetscapes) in the allotment gardens is much lower than expected, at only 0.4%.

◀◀ **Table 2:** Quantity and distribution of unique landscape features by type throughout Hungary, in the allotment garden areas

Fig. 7: Wine cellar row and the adjacent allotment land plots in Piliscsév

KINGA ALBICZ, 2023

Fig. 8: The Polish Chapel and the stone cross in front of it are fine examples of sacral landscape values in the allotment garden area of Hegymagas

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Quantity and type distribution of unique landscape features in the sample area

Most of the unique landscape features in the sample area can be found in Esztergom (8.4% of the total landscape features in the sample area) and in the allotment garden areas of Pomáz, Piliscsév and Dorog. The number of unique landscape features per square kilometre in the sample area is 9.34 per km², so the density of unique landscape features in the sample area is significantly higher than the national average.

The most significant, also in the sample area, is the category of unique landscape features related to vine and fruit production (52.5%), which confirms the vineyard origin of a large part of the allotment gardens in the sample area and the high number of related landscape features. The occurrence of unique landscape features is well above the national average (6.2%). Crosses and crucifixes are typical boundary markers.

4. CONCLUSIONS

In allotment areas, the density of unique landscape features is almost five times higher than the national average. One third of the country's unique landscape features related to vine and fruit production are concentrated in allotment areas. However, the results of the research also revealed that the survey of allotment values is far from complete, in reality there are many more features (wine cellars, gorges and retaining walls of stone) in allotment

gardens than are recorded in the databases. The significance of allotment gardens in the protection of the visual landscape is confirmed by the fact that their area ratio in the zone of visually sensitive landscapes is almost one and a half times the national rate.

The findings of the vineyard origin analysis revealed that vineyards' pasts as historical antecedents affect a significant part of the total allotment garden area (almost three quarters of the sample area).

In allotment garden areas, unique landscape features occur at a density almost five times higher than the national average and a third of the country's unique landscape features related to vine and fruit production are concentrated in these areas.

It can be seen in the sample area that in the allotment garden areas of vineyard origins, the number and density of unique landscape features related to vine and fruit production is higher.

The results of the research raise the question of how the presence of landscape features and landscape significance influence the transformation processes of allotment gardens. Due to the length limitations of this article, these correlations will be analysed in a future publication. ☉



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Fig. 9: An old linden tree on the wine cellar row in Piliscsév with a statue of St. Orban next to it

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Fig. 10: Statue of St. Orban with a Roman milestone with plinth on the outskirts of Piliscsév

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