



SZENT ISTVÁN UNIVERSITY

**RESEARCH OF THE MEDIVAL MONASTIC
LANDSCAPE WITH REGARD TO THE MONASTIC
ORDERS**

THESES OF PHD DISSERTATION

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1. BACKGROUND OF THE WORK, GOALS

The objective of my thesis is to analyse the medieval monastic landscape formed through the activities of the three monastic orders: Benedictines, Cistercians and Premonstratensians. The analysis consists of steps that are differentiated in a temporal and spatial aspect but at the same time built upon each other.

My dissertation focuses on three time periods, each with its own set of goals:

1. The era of settling: This interval spans from the foundation of the first monastery in Hungary in 996 (Pannonhalma=Szentmárton) to the Mongol invasion of Hungary in 1241-1442. The goal of the analysis for this period was to describe the characteristics and properties of the landscape of the chosen locations in the period of the foundation of the monasteries by the three orders. Another objective I set for this period was to determine if the sites chosen for the monasteries were in accordance with the expectations and regulations of the order.

2. Middle ages: Analysis of the landscape, landscape forming activities of the three monastic orders in the period that lasted from the foundation of the individual monastery to when it ceased to function, or until the battle of Mohács (1526) the latest. My primary task during the analysis of this period was to explore the landscape surrounding the monasteries and the changes caused by the appearance of the monks and also to describe the characteristics of the medieval monastic landscape.

3. Present day: I examine the survival of elements of the monastic landscape and their traces in the contemporary landscape structure of the monastic landscape, specifically, the fishponds. The choice is supported by the fact, that the fishpond is the most lasting surface forming element of the monastic

landscape. An additional goal involving this time period was the exploration of the present day remains of the monastic landscape and presentation of the changes in land use.

The examinations supporting the goals drafted above consist of three different parts. In the first step I provide an overview of the landscape archeology and research of the monastic landscape both on domestic and international scale. Thus creating an appropriate foundation for my own research. At the same time I consider it important to create an accurate definition of the monastic landscape. In the second step I explore the historic, economic and infrastructural background of medieval Hungary, and review the data (history in Hungary, agriculture, landscape forming) regarding the three monastic orders. In the third step I conduct an analysis of the sample sites in the era of settling and the middle ages using the methodology I developed as part of this dissertation. The examination of the landscape is complemented by the exploration of present day land use and remains of the medieval monastic landscape at the sample sites. Finally based on these I have established the results related to the goals, my theses and the verification or disproval of the hypotheses formulated based on my objectives.

2. MATERIAL AND METHODOLOGY

The foundation of the research was a ledger of medieval monasteries that I compiled. This ledger contains information related to the location and foundation of the monasteries split by order. Based on the register at hand and limitation on the time interval (when choosing the monasteries to be examined the primary selection criteria was the year of the foundation: all were established before the mongol invasion of Hungary of 1241-1242), I have chosen a total of 32 sample locations for examination: 13 of these belonged to the Benedictine, 8 to the Cistercian and 11 to the Premonstratensians order.

I started with researching the literary sources for the sample locations (censuses of estates, descriptions of borders, letters of foundation, previously published studies, dissertations, archeological data). I have explored the following pieces of information for the selected 32 locations: exact location, year of foundation, founder, time of dissolution, land use prior to the foundation, the road and settlement network of the surrounding area, the current state of the monastery. I have emphasized the collection of the medieval estates owned by the monasteries and description of their agriculture and economics.

Following the literary research I have applied the steps of the self-developed analytic methodology. The analyses were differentiated based on their scale and temporality. First I have studied the environmental characteristics of the monasteries at the time of their foundation. The analysis involved the following data: altitude, typical slope, dominant aspect, distance to watercourse, distance to medieval settlement, distance to medieval roads, presumed land use prior to the establishment of the monastery. The goal of the examination was to describe the characteristics of the landscape for each of the monastic orders. In the second step I have defined a circular buffer zone of 500m radius around the monastery (That partially encompasses the estates in immediate vicinity of the monastery). On this scale I have analysed the following data: altitude, slope, aspect, assumed land use prior to the establishment of the monastery, land use

later in the middle ages, emergence of medieval settlements in the area surrounding the monastery. The goal of the analysis is to establish theses discussing the quality and scale of the landscape forming impact caused by the appearance of the monks, and to describe the medieval monastic landscape. The third step of my methodology is the comparison of medieval and present day land use on the selected sample sites. One of the most prominent elements of the monastic landscape is the fishpond. In the case of monasteries where a fishpond could be accurately located, I examined the present day remains, as well as the current land use. The aim of this examination was to explore the present day effects of the elements of the monastic landscape.

3. RESULTS (THESES)

T1. Defining the monastic landscape as a concept

The monastic landscape is a combination of the monastery itself along with the surrounding area, that was formed by the monks and the connection and activities associated to the land of the monastic community. The monastic landscape extends to all estates, should they be located in the immediate vicinity of the monastery or at a further distance.

The extent of the monastic landscape varies by monastic order and can be different even for monasteries within the same order. It's location and magnitude depends on the number of monks living at the monastery and the size of the estate received in donation. The diversity and the variety in size can be observed in the catalogue of estates (Appendix M6), and the detailed analysis of the monastery at Borsmonostor in section 4.4.

T2. Developing research methodology for the examination of the monastic landscape

The methodology aids in achieving the objective of determining the landscape properties at the time of the foundation, describing the landscape (in the case of my thesis this is the medieval monastic landscape) and landscape forming activities of the monks. During the development of the methodology it was my goal to create a framework of examination that can be applied to any geographical area (a country or region) and any time period, while being repeatable and has no limitation on the number of monasteries analyzed. The methodology combines several scientific disciplines: landscape analysis, landscape archeology, geoinformatics, topography, art history and architecture history. The procedure consists of multiple steps that are dependent on each other:

Step 1: Selection of sample site(s), application of temporal and territorial limits

Step 2: Detailed analysis of available bibliographical sources for the selected period and area

Step 3: Analysis of the landscape at the time of settling: Determining landscape properties at the time of the foundation

Step 4: Analysis of the monastic landscape and landscape forming activities carried out by the monasteries

Step 5: Examination of the survival of elements of the monastic landscape.

T3. Determining the landscape properties of Benedictine, Cistercian and Premonstratensian monasteries at the time of their settling in Hungary

Part of the new scientific results established with the help of the research methodology I developed was determining the specific landscape characteristics of the monasteries belonging to the three monastic orders at the time of their settlement.

T3/1: Landscape characteristics of Benedictine monasteries at the time of their settling in Hungary

Benedictine monasteries were founded on the northern, western and north-western slopes of elevations (mountaintops and hilltops), on flat or slightly sloped ground (naturally there are exceptions), in the immediate vicinity of a water-course. The monasteries were located near the main routes and settlements could be found in the proximity as well. The monasteries were built on previously uncultivated land, prior to the establishment of the monastery, the sites were predominantly woodlands, moorish and marshy grounds. These properties confirm that in case of the Benedictine order the attributes of the terrain matched the requirements of the order: they occupied mostly unpopulated areas that were owned by royalty or noble kinship. However the monasteries were established near settlements and roads thus contradicting the rules of the order.

T3/2. Landscape characteristics of Cistercian monasteries at the time of their settling in Hungary

Cistercian monasteries were founded on the northern, eastern and north-eastern slopes of valleys, on flat and slightly sloped ground, in the immediate vicinity of watercourses; they were also located near the main routes. The monasteries were built on already settled lands or yet unsettled areas, but close by to settlements. In this context, the predominant land use, prior to the foundation, were settled, built-up or previously uncultivated, moorish, marshy sites. Consequently in case of the Cistercian monasteries the rules of the order were not completely matched by the properties of the landscape, as the monasteries were built within or close to settlements and main roads passed in their vicinity.

T3/3. Landscape characteristics of Premonstratensian monasteries at the time of their settling in Hungary

Premonstratensian provostries were founded on elevations (mountaintops and hilltops), on flat or slightly sloped ground, in the immediate vicinity of a water-course (in regions not dominated by Benedictine or Cistercian communities). A dominant aspect for the monasteries could not be determined. The monasteries were located further away from main routes and settlements. Premonstratensian claimed previously uncultivated lands (woodlands, meadows, marshy, moorish areas). Therefore in case of the Premonstratensian order the founding person played a significant role, at the same time the landscape and terrain properties were in accordance with the rules of the order, the monasteries were built further away from settlements and roads.

T4: Landscape forming impact of the different monastic orders is diverse in areal extent

Based on the performed analysis, I have established that the difference in areal aspect derives from the size of the donated lands, whereas the size of the grants is related to the identity of the founder. Monasteries that were founded by the king received considerably larger and more numerous estates compared to the privately founded ones. So monasteries in medieval Hungary that had more and larger estates exerted their landscape forming influence on larger areas. Another reason for the areal differentiation is the location of the estates. A larger property was located immediately around the monastery, while the rest of its estates were scattered throughout the country. As a result of the dispersion the landscape forming impact of the monastic community occurred on one hand in the immediate vicinity of the monastery on the other hand on the estates scattered around the country.

T5: The landscape forming impact of monastic landscape happened in two differentiable time periods. The first interval was at the time of the settling, the second, longer period encompasses the Middle Ages

I have determined that the first significant impact on the landscape was the construction of the monastery buildings itself. The monasteries I examined dominated their surroundings when they were first built, even if erected in or close to a settlement; they were outstanding elements of the environment of country towns. The second time interval encompasses the Middle Ages. At the time of their foundation the monasteries were surrounded by uncultivated land, mostly forests, meadows, marshes and moors. After settling the monks claimed these lands; broke fallows, drained marshes, cut the woods; they cultivated the previously unused lands around the monastery. Thanks to the advanced agricultural techniques the lands owned by the monasteries started to develop. By the end of the middle ages, villages and country towns emerged around the monasteries and the manors owned by them.

T6: Agricultural activities carried out in the immediate vicinity of the monastery were adapted to the exiting characteristics of the landscape

I have determined that the more advanced agricultural techniques were combined with the local possibilities and conditions. Flat and relatively flat areas were turned into fields, pastures or orchards, while on steeper slopes were planted with grape, thus revitalizing viniculture in Hungary. Another outstanding example of adapting to the characteristics of the landscape is the creation of fishponds. Wherever the properties of the terrain allowed, fishponds were established by damming streams.

T7: The landscape forming activities carried out by the monastic orders had both direct and indirect effects

I determined that on the estates, villages close to the monasteries were directly affected in multiple ways: villages emerged (new settlements were established around the monasteries in the later centuries) and settled permanently, advancements in agriculture (use the three-year rotational method, use irrigation from dammed watercourses instead of floodplains). An indirect effect can be observed later on lands not owned by the monasteries. Surrounding settlements and manors adopted the improved agricultural techniques, the impact of this can be observed in the late middle ages.

T8: The original medieval monastic landscape has completely changed, in some cases vanished, and only a few elements survived until present day

I established that the agricultural sites once surrounding the monastery have vanished or have been built upon. Abbeys still functioning today, as well as the remains of destroyed monasteries are enveloped by settlements, at sites where the buildings of the monastery were completely destroyed the settlement built over their former locations. Despite of these a few elements of the monastic landscape survived or their location can be identified. These elements are the fishponds created by the monks by damming streams. Their number has decreased over the centuries and only a few survived in their original form, like the ones in Zirc, Somogyvár or Jász. In Pilis or Borsmonostor the fishpond doesn't exist anymore, but its former location can be identified.

4. FINDINGS AND SUGGESTIONS

As part of my doctoral research I have explored the properties of the landscape of the Benedictine, Cistercian and Premonstratensian order in the era of settling. In the analysis of the medieval monastic landscape I have determined that depending on the founder of the monastery the landscape altering activities of the orders show variation in territorial and spatial extent. The analysis of the landscape characteristics, and location and structure of estates made clear, that the monks have adapted to the local conditions while they combined the methods they brought from the West with pre-existing situation in Hungary. Today the medieval monastic landscape has changed and transformed, some elements of the landscape have vanished completely or partially. In case of some of the medieval landscape elements, for example fishponds and mills, the location can still be identified, and some of these have even survived entirely until present day.

In Hungary researching and analysing the monastic landscape represents a new scientific field, exceeding traditional archeological and bibliographical research, building on and complementing them with landscape analysis, this way it regards and interprets the changes in landscape in a complex manner. Thanks to this the topic of the monastic landscape holds many research opportunities and possible directions for further research. One interesting area of research could be the analysis of monasteries and connected villages, estate centers, farms based on their role in spatial organization. Another possible direction of research is studying the traces of medieval agriculture at monasteries still functioning today. Historical ecology deals with the environment forming effects of changes in society and economy, revealing the relationship of the changes throughout history. Combining the research of the monastic landscape with historical ecology can unveil additional interesting facts and correlations concerning the landscape forming activities of the monks.

5. PUBLICATIONS BY THE AUTHOR IN RELATED TOPICS

Scientific article

1. MAGYAR V. (2012): The effect of monks in the Hungarian urban design and landscape forming. *The Online Journal of Science and Technology* 2 (3), pp. 61-65.
2. MAGYAR V. (2011): Relationship of the location and landscape forming at the farming orders. *Acta Universitatis Sapientiae Agriculture and Environment Supplement* 3, pp. 144-151.
3. MAGYAR V. (2011): Connection of farming and landscape forming in the Benedictines. *Review on Agriculture and Rural Development* 6 (1), pp. 88-92.
4. MAGYAR V. (2011): Hasonlóságok és különbségek a hazai és az európai szerzetesek tájalakítása között. *E-tudomány* 8 (3), pp. 11-18.

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5. MAGYAR V. (2011): The effect of monks in the Hungarian urban design and landscape forming. Konferenciacikk. *International Science and Technology Conference Proceedings Book*. Istanbul University, Istanbul, Turkey, pp. 807-811.
6. MAGYAR V. (2011): The relations between the location-activity- and landscape forming at the orders. Konferenciacikk. *Tavaszi Szél Konferencia Konferenciakötet*, pp. 233-240.
7. MAGYAR V. (2010): The impact of the Benedictines and the Cistercians on the agriculture and landscape forming in Hungary. Konferenciacikk. *International Science and Technology Conference Proceedings Book*. Turkish Republic of Northern Cyprus, pp. 766-770.
8. MAGYAR V. (2010): Connection of farming and landscape forming in the Cistercian. Konferenciacikk. *PhD hallgatók VII. Nemzetközi Konferenciája*, Miskolc, pp. 35-40.

9. MAGYAR V. (2012): Környezet és természetvédelmi elvek a szerzetesek munkásságában és tájalakító tevékenységében. Konferenciacikk, Tavaszi Szél 2012 Konferenciakötet. Doktoranduszok Országos Szövetsége, Budapest, pp. 437-441.
10. MAGYAR V. (2010): A Ciszterci rend szerepe a vidékfejlesztésben. Konferenciacikk. XVI. Nemzetközi Környezetvédelmi és Vidékfejlesztési Diákkonferencia, Szolnoki Főiskola Agrárgazdálkodási Intézet

Conference abstract

11. MAGYAR V. (2011): Similarities and difference between the domestic and European monks's landscape forming. Abstract, II. Conference of PhD Students on Environmental Studies 'Change of the environmental quality in Hungary and in the EU'. Doktoranduszok Országos Szövetsége, Budapest, pp. 44-45.
12. MAGYAR V. (2011): Relationship of the location and landscape forming at the farming orders. Abstracts. I. Transylvanian Horticulture and Landscape Studies Conference 'Tradition and innovation', pp. 117.

Book chapter

13. MAGYAR V. (2012): Szerzetesrendek szerepe a táji értékek megőrzésében. In AUBERT A. – GYURICZA L. – HUSZTI ZS. (szerk) A kultúra turizmusa - a turizmus kultúrája, Pécsi Tudományegyetem, TTK Földrajzi Intézet, Pécs, pp. 115-124.
14. MAGYAR V. (2011): Szerzetesrendek szerepe a hazai gazdálkodás fejlődésében. In Dr. habil Ferencz Árpád (szerk.): Erdei Ferenc VI. Tudományos Konferencia. Kecskeméti Főiskola Kertészeti Főiskolai Kar, Kecskemét, pp. 501-505.