

The Changes of Czech Cultural Landscape in the Intermediate Countryside

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Abstract: The Czech cultural landscape is a subject to permanent change, because it is permanently used and influenced by man. Cultural landscape associated with the local identity plays a key role in rural development. Therefore, it is important to document the changing landscapes for future generations. One type of Czech rural areas is an intermediate countryside as for example the Vysokomytsko microregion. The Vysokomytsko microregion is a voluntary association of municipalities in the Pardubice region.

Key-Words: cultural landscape, intermediate countryside, landscape heritage, land use, Vysokomytsko microregion

Introduction

Landscape which is permanently used and influenced by man can be considered as cultural landscape. This landscape has been in the current area of the Czech Republic since the Neolithic Age [1]. Therefore the cultural landscape is subject of constant change. It is relatively easy to analyse quantitative and qualitative changes in the landscape. But some investigations about social and mental aspect are rare. However just the mental changes and landscape perception are often most determining for a creation of local identity and by such a way for a stabilization of rural settlement [2]. Local identity associated with the cultural landscape plays a key role in rural development. This project aims to capture vanishing testimony about the cultural landscape and to retain it for the future generations.

Countryside and rural areas are important areas of Czech territory, but it is difficult to clearly define their boundaries. Basically there is no unified definition for the term countryside. The countryside is generally defined as a sparsely populated area where agriculture has an important function. Countryside can be defined by low number and density of the population in terms of demographics, by a specific type of buildings in terms of urban and by another way of life in terms of sociology [3]. The only universally accepted international definition is the OECD definition, which is based on population density. The upper limit of the population density is

150 inhabitants/km² for countryside. This limit is reduced to 100 inhabitants/km² in Czech Republic.

Fig. 1 Spaces typology for classifying of rural areas in the Pardubice region (Source: [4], edited by Doskocilova)



Municipalities with less than 2,000 inhabitants can be considered rural municipalities. There are more than 5,000 of these municipalities in the Czech Republic and their population is about 2.5 millions. The area of the cadastral territory of these municipalities forms $\frac{3}{4}$ of our country area. These are the reasons why the countryside in the Czech Republic must be taken as a significant area. Three types of rural areas are defined by typology of rural municipalities. The suburban countryside is found in vicinity of big cities and it is influenced by suburbanization and significantly increasing its population. The intermediate countryside is the average of developed municipalities farther away

from large urban centers with good transport connections. Remote countryside is defined in peripheral areas with unfavorable socio-economic characteristics of the population.

The cultural landscape went through many changes during the last seventy years. These changes can be measured in many ways, including comparative methods. In this sense, it is the last chance to experience the original mental image of the landscape.

Material and Methods

The project “Landscape memory as rural heritage” was launched in January 2014. Mapping of the changes in the cultural landscape of Czech Republic in the mental picture of their inhabitants is the aim of the project. The capture of vanishing testimony about the landscape and its preservation for future generations are the purpose. The model area was chosen with regard to the past landscape development. Therefore, each model represents a different type of the Czech cultural landscape. The selected model areas were chosen a case area at the level of microregions. Case study Vysokomytsko microregion should identify, analyze and permanently document the changes of Czech cultural landscape of the intermediate rural areas. Landscape structure was analyzed at the level of primary (natural), secondary (land use) and tertiary (landscape protection, socio-economic areas). This paper analyzes the landscape structure at secondary level.

Old map data were described based on the internet application of Geoinformatics Laboratory [5]. Land use data from the years 1845, 1948, 1990 and 2000 are from Database of long-term changes in land use of Czech Republic [6]. The data of the term from 2001 to 2013 which were used in the case study of Vysokomytsko microregion is from sources of Czech Statistical Office [7].

Currently field research is implemented focusing on landscape values and perceptions of the cultural landscape of its inhabitants. The initial information about the microregion development will be obtained using semi-structured interviews with current and former mayors and residents older than 65 years. The results arising from the interviews will be compared with historical sources. The obtained values and information about the territory will be passed to the youngest generation (pupils and students of local schools) through organized discussions, debates and exhibitions during the second year of the project. The final aim of the project is to prepare general recommendations for

strategic development of communities and regions (the modern chronicle of the municipality).

Results and Discussion

Vysokomytsko microregion is a voluntary association of municipalities in the Usti nad Orlici district in Pardubice region (see Fig. 2). The microregion was established on 8 March 2001, with an area of almost 20,000 ha. The microregion surface is hilly area with the average elevation about 350 meters above sea level. It is the warmest and driest areas in the Pardubice region. The microregion area falls into the Labe river basin. The Vysokomytsko microregion has the largest percentage of agricultural land in the Pardubice region. Arable land is covering more than half of the microregion (see Fig. 3). Forest area is quite small and widely dispersed, larger area of forests is in the north of the microregion. Permanent grass land covers almost one-fifth of agricultural land. There are not vine yards and hop fields in the microregion. During last years, there is an increase of developed and other areas. The microregion is ecologically unstable, ecological stability coefficient is 0.59.

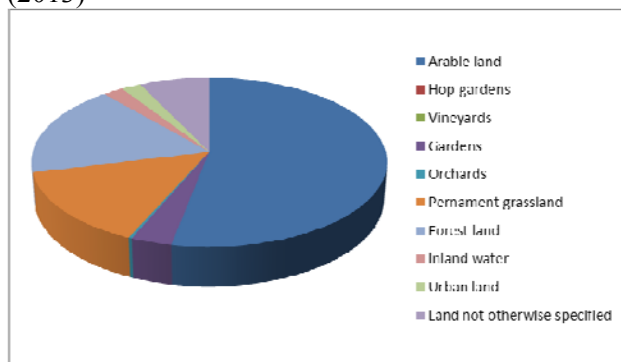
Fig. 2 Place of the Vysokomytsko microregion in the map of the Czech Republic



Vysokomytsko microregion consists of 28 municipalities and there are more than 21,000 inhabitants but the population density is below average (113 inhabitants/km²). Three-quarters of municipalities are villages with more than 500 inhabitants. There is just one small town – Vysoke Myto [8]. Vysoke Myto is the sixth largest city of the Pardubice region. Cadastral area of the municipality is a total of 4,402 ha. The population of Vysoke Myto is 12,436 inhabitants. Vysoke Myto is a municipality with extended powers. It means that this small town performs administrative duties for the inhabitants of the surrounding area. Vysoke Myto was founded by Czech King Premysl Otakar II. at place where an older settlement originally stood in 1262. There passed Trstenice trail, which

was an important trade route leading from Bohemia to Moravia. Vysoke Myto is a historic town with many interesting cultural monuments. In the center of town is the square of Premysl Otakar II. It is the largest square shape square in the Czech Republic. Vysoke Myto is situated at an altitude of 284 meters above sea level. The Loucna River flows through the town. There is breeding Chobot pond on the northeastern edge of the Vysoke Myto with an area of 49 ha.

Fig. 3 Land use of Vysokomytsko microregion (2013)



Two municipalities were studied in the microregion. There are the municipalities Pustina and Bucina. Pustina is located 7.5 km south of the Vysoke Myto. Pustina is one of the youngest municipalities in the Pardubice region. The first written mention of this small village dates from 1720. There are currently 67 inhabitants in the village. The total cadastral area of the village is 283 ha. Pustina is located at an altitude of about 450 meters above sea level, and it is one of the highest villages in the Vysokomytsko microregion. There are beautiful views of the surrounding countryside from the hill above the village. Bucina is located 7 km southeast of Vysoke Myto. There are 228 inhabitants in the village. The village area is a total of 383 ha. The first written mention of the village dates from the foundation charter of King Vladislav I of 1167. Although Bucina is located at a lower altitude (316 meters above sea level) than Pustina there are also good views of surrounding countryside.

The changes in the landscape of surveyed villages were examined on the basis of the surviving map data. Müller's map from 1720 presents a rough assessment of landscape structure. Bucina is already shown on this map. Pustina is not shown on the Müller's mapping, although Pustina is known this year since the first written mention. Comprehensive map works of the 1st, 2nd and 3rd Military Survey and

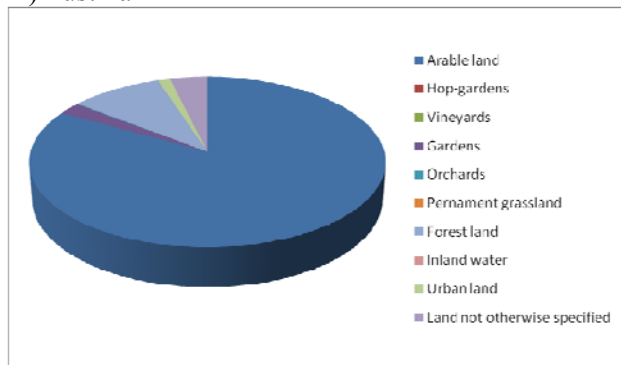
stable cadaster served basic information about a landscape. The 1st Military Survey maps from the 18th century show the village Pustina for the first time. Forest areas are located mainly in the southwestern part of the cadastral territory, but there is also urban land. Bucina is unfortunately on the border of two map sheets within the 1st Military Survey. The top sheet is damaged at the bottom, so some information about the village is missing. Also this map shows the forest area in the southwestern part of the cadastral territory. The arable land is a large part of both villages area. The maps of the 2nd Military Survey from the first half of the 19th century show that forests disappeared in the southwestern part of the cadastral area and near the village Pustina. Forest stands in the southwestern and northwestern parts of the Bucina cadastral retained as arable land. There are no major changes on maps of the 3rd Military Survey. Forest areas are still as arable land around the village. Alleys are shown on the map around the main roads. The water surface can be clearly distinguished in the stable cadaster map of Bucina, These surfaces were located in the area. There is currently only fire tank in Bucina on the place where it was Louze.

The basic territorial unit in the Database of long-term changes in land use of Czech Republic [6] was created by linking of cadastre, depending on changing of cadastre's land area. For this reason, the Pustina cadastre was connected with cadastre of close village Repniky. Land use data from the years 1845, 1948, 1990 and 2000 can not be used. Bucina cadastre is considered a separate basic territorial unit in this database. In 1845 the arable land occupied 304.6 ha (80%) and forest land occupied 34.7 ha (9%) in Bucina. The arable land reached its peak of 319.6 ha (83%) in 1948, but forest land decreased by 6 ha. The arable land decreased to the 280.2 ha (73%) in Bucina during the following period of the communist regime. The arable land increased again by 19.1 ha (78%) during the transformation. This can be explained by a change in agricultural policy in the Czech Republic.

Statistics of land use have been kept since the beginning of the 21st century [7]. In 2001 the arable land occupied 230.81 ha (83%) in the Pustina cadastral area. Forest land occupied 26.11 hectares (10%). The urban land occupied only 3.52 ha i.e. 1% of the total area of cadastre (see Fig. 4A). In the same year the arable land occupied 299.26 ha (82%), forest land 29.25 ha (8%), and urban land 6.96 ha (2% - see Fig. 4B) in Bucina.

Fig. 4 Land use of villages from the year of 2001

A) Pustina



B) Bucina

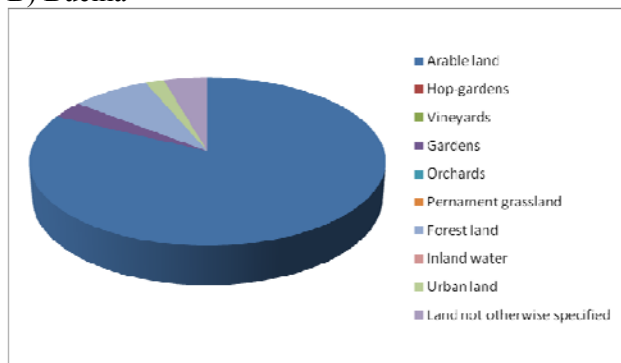
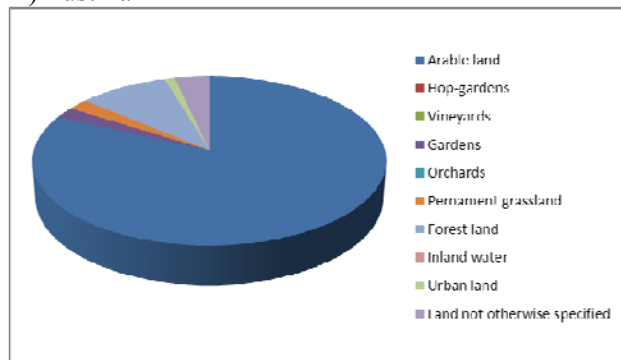
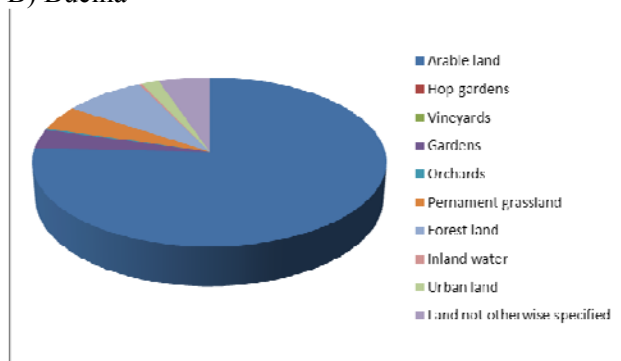


Fig. 5 Land use of villages from the year of 2013

A) Pustina



B) Bucina



Currently arable land occupies 230.9 ha (82%) of the cadastral area of Pustina (see Fig. 5A). Forest

areas are located at the 9% of the area. Other categories of land use in the area either absent or are negligible. Arable land occupies 289.28 ha (76%) of the territory in the Bucina cadastre (see Fig. 5B). Forest areas represent only a small part (8%). Permanent grassland and other areas occupy both 5% of the cadastral territory. Other categories are zero or negligible.

Detailed information about land use of the Pustina cadastre is up to 13 years. In this period, the land use almost unchanged in Pustina. In contrast, changes are obvious in the land use of Bucina cadastre. Arable land decreased by 5.3 ha from 1845 to 2000. This area decreased by a further 10.2 ha for the past 13 years. The forest area decreased by 2.7 ha from 1845 to 2013. The largest increase belongs to the other areas and urban land in this cadastre in the category of land use.

Conclusion

The nature of this intermediate countryside did not change for last three centuries. The surrounding landscape of both studied villages is still used for agricultural farming. Forest land represents only a small part of the territory in comparison with arable land. Still almost everyone from the natives of the village finds something on the landscape that is missing or something will be missing the next generations. The aim of this project is just to keep at least the form of memories, image or photos.

The main project output will be modern chronicle of Bucina and Pustina communities. This chronicle will synthesize gained knowledge, memories and stories of local residents, archival video and audio documents and unique information about the Vysokomytsko microregion.

Another result of the project will be also a popularization of problems of microregion landscape and meeting of local residents of all ages (especially the elderly and children). The results of the project will serve to further promote of microregion and for the government too.

Acknowledgement

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