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CHANGES OF DISPERSED SETTLEMENTS IN RURAL CULTURAL LANDSCAPE FROM THE STRATEGIC PERSPECTIVE (WITH SPECIAL ATTENTION TO THE VILLAGE HRUŠOV IN CENTRAL SLOVAKIA)

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Abstract
The aim of this paper is to analyse changes of dispersed settlements in rural cultural landscape in municipality Hrušov (in the Krupinská planina plateau, Central Slovakia) with special focus on the development strategies applied in an effort to escape marginality. The area outside the core of the village is the unique dispersed settlement system with some specificities in rural development which are typical for marginal regions of Slovakia with such a type of settlement. The study deals with the development trends of the rural cultural landscape in the years 1950, 1986 and 2016 in the context of landscape changes in Slovakia. Attention is paid to marginality of the studied area, paradoxes and possibilities of its development and to the monitoring of the dispersed settlement developments in the light of local, regional, national and international documents. Diversified activities accomplished by the municipal authority, important local leaders and amenity migrants can serve as worth to follow example of how to restore care for a cultural landscape with dispersed settlements and how to eliminate the negative phenomena associated with the marginality status.

Key words
Rural cultural landscape, dispersed settlements, marginality, development programmes and documents, village Hrušov (Veľký Krtíš district).

INTRODUCTION AND OBJECTIVES

Despite the continuing concentration of population in compact (clustered) settlements, the dispersed (scattered) settlements are still present in various forms in most parts of the world. A dispersed settlement with its residential and landscape structure, distinctive building and social and cultural peculiarities, has created unique manifestations of material and spiritual heritage and genius loci. A landscape with dispersed settlements represents in most regions across Europe a spe-

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cific type of rural landscape that has experienced a significant change in the late twentieth and the early twenty-first century.

Social and technological modernization has affected almost all areas of the rural life. Rural restructuring has produced causally linked effects across a multiplicity of sectors with consequences that are qualitative as well as quantifiable (Woods 2005).

Huba (1989) states that a dispersed settlement only meant the relocation of a part of population to remote and unsuitable parts of the cadastre and that, to some extent, it always constituted an extreme and emergency settlement pattern. In spite dispersed settlements across Slovakia cannot be perceived as a marginal phenomenon. Municipalities with this form of settlement occupy 4,640 km^2, i.e. about 10% of the area of Slovakia (Verešík 1974). The above mentioned author identified 166 villages with dispersed settlements in 1961 where about 140,000 people (3.3% of the total population) lived in approximately 2,900 hamlets. Almost the same number of the population lived in these villages in 1991 (Spišiak 1998) which was 2.6% of the total population. Špulerová et al. (2017) identified the occurrence of functioning historical structures of agricultural landscape with dispersed settlements in Slovakia on an area of 21,298 ha, which is about 1% of the area of agricultural land. As an indirect comparison, information may be given that while almost 12% of the Spanish population lived in dispersed settlements in 1960, it dropped to 7% in 1980 (Amate et al. 2016).

The regional names of dispersed settlement patterns in Slovakia do not reflect their size or morphological characteristics (*kopanice, lazy, štále*, Verešík, 1974). Although the terminology is not consistent even between the UK and the USA, the individual hierarchical levels of dispersed settlement are sometimes more precisely distinguished there, e.g. isolated farmsteads, hamlets and scattered dwellings in UK, (Bibby & Brindley, 2013). Therefore, it was important to choose the English equivalent for the Slovak term *laz* used in the studied region, which refers to an isolated group of houses representing the basic unit of the dispersed settlement system. As the closest term to the Slovak term *laz*, we chose the term hamlet in the sense of Roberts (1996), which is defined as a settlement unit of 3-8 farmsteads located 250 m apart from each other, which best corresponds to the settlement pattern of the study area, while recognizing the differences arising from different historical, cultural-economic and physical-geographical environment.

The Hrušov dispersed settlement area along with the most of the regions with dispersed settlement in Slovakia belongs to the so-called cumulative peripherality/marginality regions defined on the basis of four groups of indicators: human resources, economic potential, household amenities, and accessibility of economic centres (Halás 2008, Halás and Hurbánek 2008). The availability of labour, education, services and transportation significantly influences the quality of life in such regions. The supply of job opportunities and services is not sufficient, and

particularly young and well-educated people often respond by emigrating. On the other hand, in some such regions we surprisingly find specific features of human and social capital (active mayor, group of local activists, folklore groups, local entrepreneurs, NGOs, etc.), which relativize the status of traditionally understood marginality in many ways.

Despite numerous factors limiting the continued existence of dispersed settlements, there are several conventions, strategies, programmes, schemes, instruments, and measures directly or indirectly supporting its continued existence at the international, national, regional, micro-regional and local levels. The individual international documents that the Slovak Republic has undertaken to comply with form a framework, an argumentative basis and, to a limited extent, support mechanisms in favour of preserving/protecting a dispersed settlement and the surrounding rural landscape. They concern strategic, institutional, environmental, economic, social and, last but not least, cultural issues.

The aim of the paper is to analyze on the example of the village Hrušov, with a large dispersed settlement, the development of the rural cultural landscape between the years 1950, 1986 and 2016 in the context of development trends in Slovakia and the EU. The development analysis is carried out in relation to its marginality and in the light of local, national and international documents, dealing with the local / regional (sustainable) development, countryside, territorial planning, strategy of agriculture, historical landscape protection / management, etc. On the basis of such an analysis the authors aim to indicate and generalize the alternatives of development and perspective of regions with dispersed settlements in Slovakia with special emphasis on the village of Hrušov. They consider dispersed settlements not only as ones slowly disappearing „cultural and economic relic of a museum nature", but perceive its maintenance, support and restoration with adequate consideration of current needs as an opportunity to maintain and restore / revitalize the historic cultural landscape in accordance with the principles of sustainable development.

THEORETICAL FRAMEWORK

Even more than half a century apart, we can agree with Birch (1967) that, despite their expansion, dispersed settlements are paid much less attention in scientific literature than compact settlements.

The definition of dispersed settlement is not unequivocal. As Schwartz (1989) pointed out, there is no generally accepted definition of the term dispersed settlement which is conditioned, among other things, by differences in the historical, social and cultural development of individual regions and, of course, differences in the natural environment. Amate et al. (2016) define dispersed settlement as a settlement area outside the core of the settlement that has no administrative and

legal personality, and which consists of one or a group of inhabited houses. Van De Velde et al. (2010) in a study devoted to Flanders, Belgium defined dispersed settlement as an area with a minimum distance of 150 meters between buildings. Omasta (2010) defines a dispersed settlement around Myjava in western Slovakia as a settlement in which there is at least one settlement located outside the main settlement of a territorial unit (usually a municipality) at least 200 m away from it. At the same time, these settlements form a larger whole, i.e. they cannot occur alone in the territory. Špulerová et al. (2017) characterize the historical structures of agricultural landscape (HSAL) of dispersed settlements as one of the four basic types of HSAL in which the determining element of land use are objects of dispersed settlement and small block mosaics of agricultural land, such as orchards, permanent grasslands or arable land (in the regions of southern Slovakia, rarely also vineyard plots).

Already the original Roman and barbaric settlements of Europe were largely dispersed and only at the beginning of the Middle Ages this model was abandoned and concentrated settlements prevailed (Hoffmann 2014). Later, in the pre-industrial period, many settlements were largely reliant on their own resources due to high transport costs preventing the establishment of permanent trade relations and creating conditions for a dispersion of population in the landscape (Sieferle 2001). In the second half of the 13th and in the 14th centuries, as a result of the division of aristocratic property, numerous one- and two-family residential units (scattered hamlets and small settlements) were established in Slovakia (Žudel 2010). Most of the dispersed settlements still existing in the Slovak Carpathians are considerably younger and were created in several settling waves between the 16th and 19th centuries (Hromádka 1943, Verešík 1974, Horváth 1980).

Ethnographers were pioneers in the interest in *kopanitse* dispersed settlement in Slovakia. Already at the beginning of the 20th century, several monographs devoted to this issue were published. Medvecký (1905) was one of the first who pointed out the transformation of seasonal settlements in the area (lazy) into permanent ones in the monograph *Detva*. In the work *Cerovo*, Chotek (1906) notices the transformation of temporary settlements in the village of Cerovo (in the Krupinská planina, plain), where there was a relative surplus of usable land due to low natality.

Because the study of dispersed settlements is of a complex nature, most studies have been carried out in geography and related sciences. In the first half of the last century, it was mainly the works of Martinka (1927), Janšák (1929), Deffontaines (1931), Hromádka (1943) and Fekete (1947), that laid the basis for research into this type of settlement in Slovakia. Later on, the issue of dispersed settlements from the geographical aspect was dealt with by Lukniš (1950, 1980), Verešík (1974), Lauko (1985), Huba (1986, 1989, 1990, 1997), Spišiak (1998), Petrovič (2006 a, b), Šolcová (2008), Omasta (2010, 2011), Zrníková and Hrčková (2012), Hanušin and Lacika (2017, 2018).

In addition to geographers and landscape ecologists, ethnologists (e.g. Priečko 2003, 2015, Švecová 1975, 1980, 1984, 1988), historians (e.g. Horváth 1980, Mésároš 1966, Prelovská 1987, Varsík 1972), territorial planners (e.g. Belčáková and Pšenáková 2013, Nahálka et al. 1966, Sitár 1967) also participated in the research of dispersed settlements. The phenomenon of dispersed settlement in Hrušov is relatively widely studied (Botík 1980, Brada et al. 2014, Hanušin and Lacika 2017, 2018, Švecová 1975, 1980, 1984, 1988, Zrníková and Hrčková 2012). Dispersed settlement research is gradually losing the predominant character of basic research and increasingly moves into application.

Dispersed settlements in several form occur in many countries around the world but the studies explicitly addressing this issue are relatively underrepresented. Studies from Japan are known from the 1950s (Matsumoto 1950, Okamoto 1955 and Takaki 1958). The theory of localization of farms in the USA Corn Belt, which are one of the types of dispersed settlements, was studied by e.g. Birch (1967) and Hudson (1969). The development of a specific form of dispersed settlement (*khutors*) in the European part of Russia was studied by Rostankowski (1982). Owen and Sarlov-Herlin (2009) studied dispersed settlements in the UK in terms of sustainability; Lake et al. (2014) studied dispersed farmsteads in Kent, UK. The prevalence of dispersed settlements in agricultural landscape of Ireland is highlighted by EPA (2008). Dispersed settlements – *tanye* – were studied in the Hungarian lowlands by Kovács and Farkas (2011), dispersed and decentralized settlements in Slovenia were analyzed by Černe (2004) and Hočevar (2012), in the eastern part of the Balkan Peninsula by Frolec (1980), in southern Spain by Amate et al. (2016). The position and development of dispersed settlements in the wider context of settlement systems have been studied by e.g. Fletcher (2019) and Troha (2017). Decades ago Dovring and Dovring (1965) have drawn attention to the link between farm settlements, landscapes and the social structure of the area.

In the 1980s, the Commission of the International Geographical Union (IGU) on Rural Development began to pay systematic attention to this issue. Among the several studies carried out on its platform, it is at least worth to mention the work of Leitmeir (1983) on rural settlement in the Alps, Rikkinen (1981) on scattered settlement in Lapland, Tiner (1983) on transport problems of small mountain settlements in northern Hungary, Chiffele (1983) on Swiss mountain farming policy and Almedal (1983) on the transformation of rural settlements in northern Norway. Other relevant research includes the work of Symon (1959) on the past and present of farming in Scotland, Ehlers (1974) on current trends and problems of agricultural colonization of boreal forests, or Majoral (1977) on the consequences of depopulation tendencies in scattered settlements in the Western Pyrenees.

As we have already indicated above, territories with dispersed settlement in Slovakia, including the territory studied by us, are referred to as marginal. Marginal and marginalized territories in cultural landscape represent a specific environment

with distorted functional and spatial relationships that result from the uneven functioning of mutually conditioned political, economic, social, cultural and environmental factors (Ira 2019). Marginality research focuses on many different topics considering the scale and the type of marginal region that the specific research is dealing with. The regions with traces of marginality, with clearly observable marginality issues and with severe marginality problems will probably attract the geographical research in fields of identification of marginal individuals or social groups, identification of the type of marginality, identification of consequences, identification of marginalizing factors, and identifying the role of geographical factors (Pelc 2017).

Several scholars tried to study marginality through specific approaches to go deeper into explanation. Leimgruber (1994) in his work defined marginal regions and proposed four different approaches: geometrical, ecological, economic, and social. He also mentioned political and cultural approaches. Ira et al. (2014) and Ira (2019) applied time-geographical approach analysing time-space behaviour of inhabitants living in marginal mountainous region. Poláčková (2010) has defined a political approach and identified four main trends of political marginality and its research in regions. She has also mentioned the perception approach focused on marginality through human perception, values and decisions. Marginality and marginal regions were also analysed in the context of globalization and deregulation (Leimgruber 2004). In a later published work Leimgruber (2007) states that marginality can be seen as a state of mind and it is subject to our respective value system. The study of the individual perception of marginality may contribute to the understanding of similarities and differences in defining marginality from two different perspectives: objective and subjective (Mikuš et al. 2016).

DATA AND METHODS

Basic indicators for assessing changes in the landscape with dispersed settlements were the nature of land cover and the number of hamlets which we processed and analyzed for the years 1950, 1986 (1990 for demographic data) and 2016. The period between the years 1950 – 1986 (1990) is referred to as the first period; the period between 1986 (1990) – 2016 was the second period. Settlement pattern of the study area consists of a core (densely built up area of the original settlement) and the network of hamlets spread over the rest of the cadastre. The observed time horizons express the state of land cover (LC) in the pre-collectivization period (1950), in the period of advanced collectivization (1986), and in the recent period (2016).

The basic database for the year 1950 was georeferenced sheets of the historical orthophoto aerial images of Slovakia from the same year (Historická ortofotomapa © GEODIS SLOVAKIA, s.r.o., et al.). Aerial images from 1986 were georeferenced to the S-JTSK coordinate system. The database for the preparation of the LC map for

the year 2016 consisted of relevant sheets of the aerial orthophotomap from 2003 updated based on the Google Earth map server (Google Earth Pro 2016). LC data were processed and analysed in ArcGis 10.1 and Excel. Although we mapped and interpreted a total of 15 LC types, for simplification we evaluated only 6 main types: arable lands, permanent grasslands (referred to as grasslands), forests and non-forest woody vegetation (referred to as forests), built-up areas in hamlets including adjoining gardens (referred to as hamlets) and areas with succession (referred to as succession areas). In defining and description of the land cover types a classification proposed by Oťaheľ et al. (2017) was adopted. The main types cover more than 95% of the area in all periods under review. When evaluating LC conversion, we followed the conversion tables as defined by Feranec et al. (2002); the extent of changes was obtained from the pivot table.

Detailed data on the population of each hamlet were obtained from the 1950 census (Národný archív SR 1950), documents for the proposal of the Territorial Plan of Hrušov (Kolektív 1990) and from the parish register (Matrika, Hrušov).

In our case study we have used both qualitative and quantitative factors to measure marginality. When we think of changes in cultural landscape, the thoughts about "marginality in the mind" can be identiefied indirectly through people's relationship to and a behaviour in the landscape / environment. The analyses of 20 structured interviews with local leaders and opinion makers and representatives of municipality in Hrušov (Huba and Ira 2020) revealed perceptions of respondents about how marginal they felt or not. The sampling was carried out using recommendations for the selection of interviewed persons proposed by the mayor and two members of the municipal council. It means that observer can determine whether local individuals or community have lost some decision power or not, and thus this process could be identified as a marginalisation process (Déry et al. 2012). As far as quantitative factors are concerned we have measured the marginality using data on: geographical remoteness (peripheral to the most developed and populous areas of the southern part of Central Slovakia); dispersed populations partly dependent on local limited resources, partly on resources obtained through jobs outside the municipality; actual lack, or low levels of physical and social infrastructure; lack, or low levels of access to the towns (cities) where services, facilities and economic opportunities are concentrated; "low productivity" of economic activities; and in the past decades the population with political influence on the decisions affecting their lives.

The last methodological step is a critical analysis of international and domestic Slovak publicly available documents, programmes and support schemes at various levels from the perspective of the issue of dispersed settlement and its possible future support.

STUDY AREA AND DEVELOPMENT OF CULTURAL LANDSCAPE WITH DISPERSED SETTLEMENTS

The main areas of the *kopanitse* dispersed settlement in Slovakia were defined and first named by Hromádka (1943). In a slightly amended form, this division was taken over by Nahálka et al. (1966), who used the names of orographic units used at the time to designate the main areas as a unifying criterion and, on this basis, set aside five areas and several sub-areas. Within this division, the village of Hrušov is located in the area of dispersed settlements in the Slovenské rudohorie (Slovak Ore Mountains) and the Krupinská planina (plain), specifically in the Krupina subregion (Fig. 1).

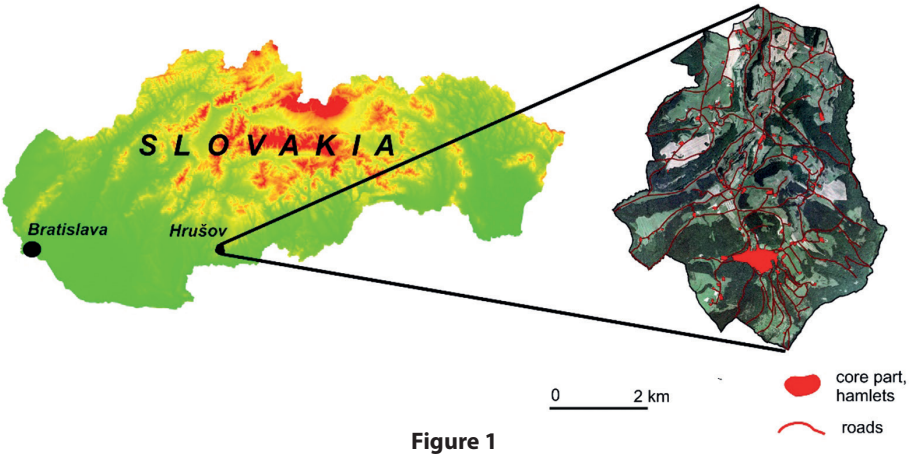

Figure 1
The study area

Most of the territory (the cadastral area) of the village Hrušov (2,331 ha) extends on the border of the Ipeľská kotlina basin and the Krupinská planina plain, known as the geomorphological sub-unit Modrokamenské úbočie slopes. The smaller northern part belongs to the Dačolomská planina plain geomorphological sub-unit (Mazúr and Lukniš 1978). The complex of volcanic-sedimentary rocks prevails in the whole study area. Altitudes vary between 200 – 521 m a. s. l.; the plains in the northern part reach an average of 450 – 490 m a. s. l. The location on the boundary of the plain and basin determines the nature of all components of the natural landscape. The average annual temperature is approximately 8.8 °C, the average annual rainfall amounts to less than 600 mm (Lapin et al. 2002). Poorly permeable volcanic rocks, lack of rainfall and location on the watersheds are the cause of low groundwater reserves. The soil cover is dominated by Cambisols. Oak forests with *Quercus cerris* and in higher positions Carpathian oak - hornbeam forests cover the majority of the area (Maglocký 2002).

The first written mention of Hrušov can be traced back to as early as 1272 (Kamasová and Bendík 1996). Around this period, a cultural landscape began to take shape – the settlement of Hrušov (today's core part) and a cultivated agricultural landscape in its hinterland which gradually expanded mainly to the north where there are relatively favourable conditions for agriculture. From the Middle Ages until the mid-19th century, three-field system of agriculture was applied. The dispersed settlement in its present form began to emerge at the end of the 19th century, as one of the youngest of its kind in Slovakia (Botík 1980). The hamlets were founded by locals, unlike most of the surrounding villages where the hamlets were founded by the immigrants from the northern regions (Švecová 1984). Later on, the hamlets have been transformed from seasonal to year-round housing. Gradually, most of the local people owned two homes – one in the core part and the other one in the hamlet. This double residency fully developed during the World War I (Brada et al. 2014). The double residency lasted almost the entire 20th century and undoubtedly affected the way of cultivation techniques and LC structure. Even in 1991, nearly half of the 437 houses in the area were hamlets (Program rozvoja obce Hrušov 2015).

Individual hamlets (*lazy*) are named after their founders and families, e.g. Matiašov vrch, Husár's settlement (Husár pusta), Brachovo (Brachova pusta,) and Stachov vŕšok. In the past, Hrušov suffered for a long time from the lack of water sources and transport connections, which made the daily life of its inhabitants difficult. Construction of the water supply system in the 1970s at least partially solved the problem of water scarcity. Even a long time after World War II, the village had no transport links to the surrounding area and its urban centres. The bus service from Vinice, a few kilometres south of Hrušov to the nearest town of Šahy did not start operating until May 1957. The electricity network for 60 families living in *lazy* became a reality in 1968. The new road to the towns of Krupina and Levice took the longest time to build. It was not completed until 1968. Larger construction activity after the stagnation caused by World War II took place at the turn of the 1950s and 1960s.

During the onset of socialism after 1950, unlike most of Slovakia, the process of collectivization of agriculture into cooperative farms (abbreviation for agricultural cooperatives in Slovak is JRD) did reach Hrušov. The character of LC inherited from the interwar period remained with little changes for the next decades. Land ownership rights completely changed. The peasants could not (except for small private farms) own the land, they could only use it. Foundation of JRD in 1979 changed the utilization of landscape and the way of life in the village albeit not totally. Small fields merged into large blocks where non-profitable, hard-to-reach fields in higher slope positions were afforested, management and service activities were centralized. Hamlets, as protuberant land management points, gradually lost their importance and many of them were later depopulated.

After the end of socialism in 1989, part of the land cultivated by JRD returned to private hands, part is managed by the agricultural cooperative in Cerovo. Local people continued to move out from hamlets to the core and the total population of the municipality decreased. Part of the houses in hamlets remained abandoned or their function converted to recreational. Abandonment of agricultural land continued. On the other hand, several new farmers came to Hrušov from outside.

RESULTS

Dispersed settlement and its demographical background

The basic demographic trend is the overall population decline of the municipality accompanied by population increase in the core part and a significant decline in hamlets (Fig. 2). In 1950, almost two-thirds of the population lived in hamlets which imply that most of the agricultural activities were carried out in the hamlets and their surroundings. The distribution of hamlets across the cadastre, the system of road network connecting individual hamlets and the position of core part is significantly determined by the morphological characteristics of the area (Hanušin and Lacika 2017).

The number of houses in hamlets varied from 1 to 12 during the monitored periods. Moreover, there were additional farm buildings across most of hamlets. The number of permanently inhabited houses did not change substantially over time which refers to a decrease in the average number of inhabitants in one house. The share of occasionally inhabited houses in the total number of houses in hamlets increased from 30% in 1990 to 35% in 2016. Most of the houses in hamlets have been built before 1945, and about a quarter of them were build between 1946 and 1980 . Construction considerably diminished (Kolektív 1990) later, which is related to the decline of population. While in 1950 there were 10 uninhabited hamlets, their number increased to 15 in 1990 and 22 in 2016. In the second period a kind of centripetal spatial concentration of the population associated with the abandonment of marginal, more distant hamlets can be observed. In 1950, the most populous hamlets were concentrated in the central and northern part of the area. In 1990, the zone of uninhabited hamlets concentrated near the south-eastern edge of the area. In 2016, the zone of uninhabited hamlets spread to the north. Many of them were on a flat plain with the best agroecological conditions. The average distance of uninhabited hamlets from the core part of Hrušov increased from 2,240 meters in 1990 to 3,000 in 2016. On the other hand, analogous values for inhabited hamlet dropped from some 3,000 m to 2,800 m, confirming the trend of depopulation of marginal hamlets. Part of abandoned houses in hamlets acquired a new, recreational function. In 2016, there were 65 occasionally inhabited houses, that is, 28% of the total number of houses.

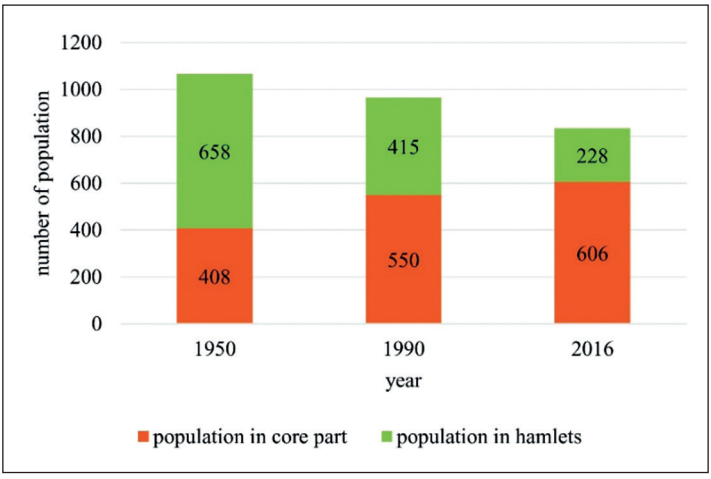

Figure 2
Population in core part and in hamlets

LC pattern and its changes

The general trend of LC changes is that of a decrease in the share of arable lands, grasslands and agricultural mosaics and increase in the share of forests (Fig. 3) indicating that the intensity of agricultural land use was declining. Overall, the increase

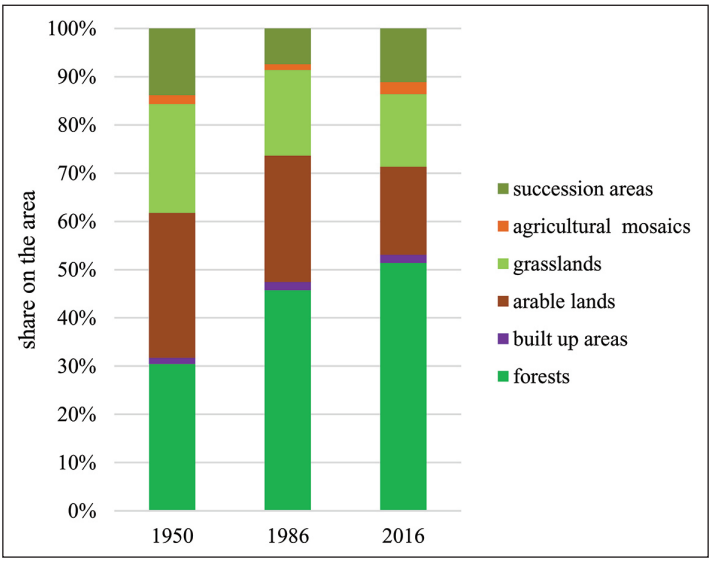

Figure 3
Land cover in 1950, 1986 and 2016

in forests was approximately the same as the total decrease in arable land and permanent grassland. The area of hamlets increased only very slightly. The common features of the distribution of the main LC categories in all observed years were the predominance of forests on the western, eastern and partially southern margins and in the sloping positions in the centre of the area.

As for LC conversion, no-change areas dominated (Fig. 4 a, b). Regarding the higher proportion of no-change areas, the second period was more stable compared to the first period, aforestation was the prevailing change in both periods. Other significant changes were the antagonistic changes in extensification and intensification of agriculture. In both periods, aforestation concentrated mainly in more sloping locations in the central and southern parts of the territory. Originally successive areas and areas of grasslands have been transformed into forests. Intensification of agriculture dominated in the northern plateau part of the territory, where the conditions for agricultural production are more suitable. During the extensification / intensification of agriculture, in most cases the grasslands changed into arable land and vice versa.

Dispersed settlement of Hrušov in relation to marginality

As already mentioned in terms of location within Slovakia, self-governing region and district, as well as in terms of limited transport accessibility, Hrušov is undoubtedly part of the marginal territory. In terms of natural soil fertility, climate and other natural conditions for agriculture, these are factors that enhance the territorial marginality.

Although marginality is generally considered a negative phenomenon that limits conventionally understood development and prosperity, in case of Hrušov we observe the efforts of the local community to "escape" marginality by preserving local traditions, farming, maintaining regional fruit varieties (gene pool), a healthy environment, a harmonious cultural landscape and the related quality of life. Hrušov eliminates negative aspects of marginality like few similar municipalities in Slovakia, partly due to quite suitable conditions for some types of agricultural production, but especially due to the systematic efforts of the municipality's management and active members of the local community. Thanks to this, Hrušov is not only a leader within the micro-region, but some of the local activities acquired a supraregional character. This applies in particular to the Hontianska paráda event, but also to the scope and quality of micro-scale (micro-regional) research and published outputs about the village and its population (see e.g. Bendík, ed., 2019), museum exhibitions, locally oriented educational infrastructure, local folklore ensembles, associations and so on.

Recently, another phenomenon that helps the municipality to escape marginality is that of "newcomers" which may significantly slow down the process

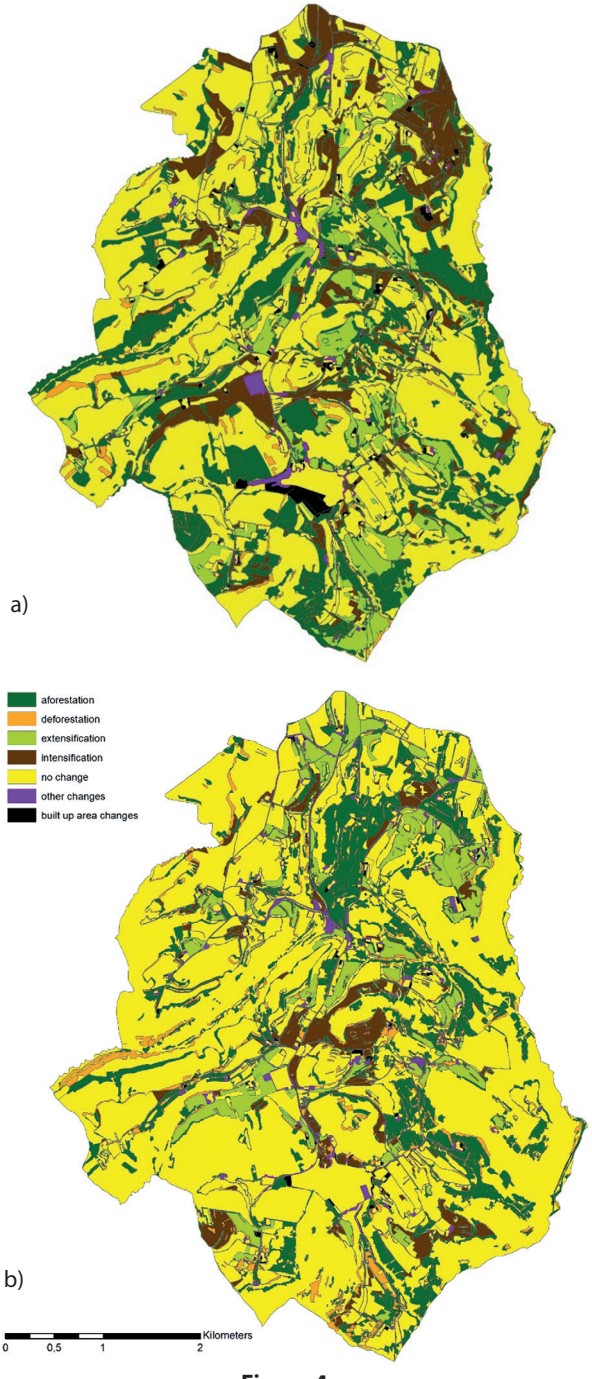

Figure 4
LC conversion in the first period (a) and second period (b)

of abandoning hamlets and releasing the surrounding agricultural land. These are middle-aged and younger people who moved to Hrušov from other parts of Slovakia (and even Czechia) with the aim of permanent stay and farming. These are not weekend and holiday vacationers or cottagers, whom we know from other regions of dispersed settlements in Slovakia. In addition to the restoration and maintenance of the residential and farm buildings, these new permanent residents of Hrušov are engaged in cultivation of traditional crops and raising livestock, introduction of permaculture, revitalisation of traditional crafts, or provision of accommodation and other services. They also contribute to the study of local conditions (environment) and participate in their professional interpretation and promotion (see e.g. Brada et al. 2014, Bendík (ed.) 2019).

Perspectives of dispersed settlement in Hrušov in the light of the institutional framework

Despite numerous factors limiting the continued existence of dispersed settlements, there are several conventions, strategies, programmes, schemes, instruments, and measures that directly or indirectly support its continued existence and sustainable development, at the international, national, regional and local levels. This is true not only in the national scale, but also in application to a specific municipality (village Hrušov).

The individual international documents that the Slovak Republic has undertaken to comply with form a framework, an argumentative basis and, to a limited extent, supportive (financial and other) mechanisms in favour of maintaining the dispersed settlement and the surrounding rural cultural landscape. They concern strategic, institutional, environmental, economic, social and, last but not least, cultural issues. Of the several relevant ones, we mention at least some of them.

At the UN ECE level, it is The Framework Convention on the Protection and Sustainable Development of the Carpathians (Carpathian Convention, 2003), at the European level Landscape Convention of the European Council (2000) and at the level of the European Union the Common Agriculture Policy 2014-2020 (European Commision (2013). Equally important and logically much more concrete and targeted are the relevant documents of the domestic provenance: at the level of the Slovak Republic - Programové vyhlásenie Vlády Slovenskej republiky (Program Declaration of the Slovak Government for Years 2020 - 2024), at the regional level it is the Územný plán VÚC BBK (Territorial Plan of the Banská Bystrica Region (last updated in 2014), Program hospodárskeho a sociálneho rozvoja BBSK 2015-2023 (Programme of the Economic and Social Development of the Banská Bystrica Region 2015 - 2023), and Program rozvoja obce Hrušov na roky 2015-2024 (Plan of the Local Development of Hrušov for 2015 - 2024) at the local level. All the mentioned documents contain parts which are important from the point of view of

further existence and sustainable development of the municipality of Hrušov and dispersed settlements on its territory.

The Framework Convention on the Protection and Sustainable Development of the Carpathians or the Carpathian Convention (2003) pursues a comprehensive policy and cooperation in the protection and sustainable development of the Carpathians. Several parts of this Convention are relevant for Hrušov village too. E.g. Article 5/1 *Spatial planning* declares: "The Parties shall pursue policies of spatial planning aimed at the protection and sustainable development..., which shall take into account the specific ecological and socio-economic conditions in the Carpathians and their mountain ecosystems, and provide benefits to the local people. Article 7/1 *Sustainable agriculture and forestry* demands maintaining the management of land traditionally cultivated in a sustainable manner... taking into account the need of the protection of mountain ecosystems and landscapes, the importance of biological diversity, and the specific conditions of mountains as less favoured areas. And Article 11 - *Cultural heritage and traditional knowledge* recommends policies aiming at preservation and promotion of the cultural heritage and the traditional knowledge of the local people, crafting and marketing of local goods, arts, and handicrafts. To preserve the traditional architecture, land-use patterns, local breeds of domestic animals and cultivated plant varieties, and sustainable use of wild plants.

Another important international document, party of which is the Slovak Republic, is the European Landscape Convention of the Council of Europe in 2000. Several parts of this Convention are also important for Hrušov. Article 5 demands inter alia to recognise landscapes by the law as an essential component of people's surroundings, expression of the diversity of their shared cultural and natural heritage, and the foundations of their identity, to establish and implement landscape policies aimed at landscape protection, management and planning through the adoption of the specific measures..., to establish procedures for the participation of the general public, local and regional authorities, and other parties with an interest in the definition and implementation of the landscape policies and to integrate landscape into its regional and town planning policies and in its cultural, environmental, agricultural, social and economic policies, as well as in any other policies with possible direct or indirect impact on landscape.

The situation could also be improved by the new EU Common Agricultural Policy (for 2021 – 2027), which calls for further "greening" and diversification of agriculture and the rural landscape in the EU member states (Matthews 2018) as well as by the new Slovak government, which in its Programme Declaration for 2020 - 2024 (*Programové vyhlásnie vlády SR, 2020*) explicitly states that it will improve the conditions of livestock breeding, and will legislatively support family forms of business, small, young and beginning farmers, through a system of microloans. It will support the active economic use of the foothills and mountain

landscape with a special focus on the dispersed settlement areas, restoration and preservation of traditional farm management systems in the landscape with dispersed settlements (lazy, kopanice, štále), development of agrotourism and preservation of the original Slovak gene pool in agricultural production. As part of increasing self-sufficiency, it will pay special attention to crops typical for our soils and climatic conditions. It will provide support for sectors that are potential sources of employment and value addition such as livestock production, special crop production, fruit growing, vegetable growing, viticulture, beekeeping and other, in order to maximize processing of raw materials from domestic production.

The issues discussed in this paper also relate to regulations of the Územný plán VÚC BBK (Territorial Plan of the Banská Bystrica Region update from 2014), which requires, among other things, ensuring the permanent landscape protection in accordance with the European Landscape Convention aimed at the preservation and maintenance of significant or characteristic features of landscape resulting from its historical heritage and natural layout or human activity.

Similarly, Program hospodárskeho a sociálneho rozvoja BBSK (Programme of the Economic and Social Development of the Banská Bystrica Region 2015 – 2023, 2015) states that more attention needs to be paid to regional and rural policy in order to increase the attractiveness of rural life and stop the growth of negative factors and especialy to improve the quality of life. The aim of the programme's measures should be to create a multifunctional rural environment that affects all areas of rural life - not only economic, but also social, cultural, environmental and institutional.

Since 2000 until now Hrušov has been a member of three micro-regional associations. Since 2015, it is the *Hontianske Poiplie Civic Association*, consisting of 30 municipalities. Hrušov has the ambition to play a leading role within this voluntary association of the municipalities of the micro-region.

The municipality of Hrušov does not currently have an official territorial plan or programme of economic and social development. They are partially replaced by the Community Development Programme (CDP) for 2015 - 2024. According to this programme, the village has preserved its distinctive character to this day with traditional folk elements of housing, culture and clothing. In addition to growing the common crops, the inhabitants of Hrušov are engaged in cattle, sheep breeding and viticulture. According to the CDP, the municipality of Hrušov has a real potential primarily for the development of rural tourism, including agrotourism (which is provided by the entrepreneurs in agricultural production and which serves as an additional financial source to maintain or expand the main business programme). These activities are directly connected with natural landscape and rural environment; they contribute to the overall development of the village especially by enabling the use of the rural environment (dispersed settlements, viticulture and wine cellars), create new jobs and help the renewal and development of the village.

As far as tourism is concerned, the starting point for the village of Hrušov is, according to CDP, to preserve the tradition, customs and way of life of Hrušov. The international *event* of traditional culture, the *Hontianska paráda* festival, offers people an insight into the life of this unusual village. The village provides specific tourism products to visitors throughout the year. These include private accommodation in the countryside and in the village with the accompanying adventure activities. The product of rural tourism is based on domestic resources and is implemented by the inhabitants of the village. The "Regional HONT brand" product also helps to make the countryside visible.

According to the SWOT analysis, based on an active participation of local citizens, the main development opportunities of the municipality are as follows: rural tourism, cultural tourism, natural (bio)agriculture, development of handicrafts within municipality, information office - information service, the municipality as a positive example in various areas and a leader within the micro-region, the possibility of rebuilding farmsteads for tourism, restoration of original eco-agrosystems for the specific eco-production, regional brand HONT and Ecomuseum and other regional brands. These findings correspond to the results of field research conducted through structured interviews (Huba and Ira 2020).

The main strategic goal of CDP in Hrušov is to ensure a balanced and sustainable development of this unique village aimed at preservation of folk traditions and improvement of the economic and social conditions of life in the municipality. The basis for the development of the municipality will be the evaluation of its internal potential with the use of external additional resources. The relevant proposed projects for 2015 – 2024 are: reconstruction of folk buildings in the village and construction of museums with different focuses, completion of the list of monuments (buildings and areas protected by the municipality) and support to the declared protected buildings, landscaping - preserving the traditional cultural landscape, construction of buildings for storage and presentation of historical farm equipment, collection and purchase of museum objects, construction of facilities for processing fruit, vegetable, support of a common point of sale for local products, support of young farmers and family farms, implementation of pilot and cyclical events (ethnography, traditional agriculture, technology, crafts, sports, etc.), mapping of regional and traditional varieties, their use and presentation, establishment of the gene pool orchards, care for the existing gene pool, material and technical equipment for groups to maintain the folklore character of the village, implementation of anti-erosion measures - restoration of plantations, especially along roads, implementation of anti-flood measures - water retention in the landscape (transverse and longitudinal modifications of ditches, seepage pits, small water reservoirs, road modifications, restoration of wells - backup sources, irrigation, etc.).

DISCUSSION

During 1991 – 2011, the population decrease (62%) in hamlets of Hrušov was higher compared to average 52% decrease in five surrounding villages with dispersed settlement in the Krupinská planina plain (Štatistický lexikón obcí SR 1992, 2011, own calculations). The probable cause is the double residency model in Hrušov. Unlike most of the hamlet villages, where a hamlet serves as an exclusive residential place, Hrušov hamlets were not exclusive residency for many locals. Thus, a double residency model allowed them migration between the core part and the hamlet, if it was convenient to them. Similar depopulation model – migration from hamlets to the core part – was reported in Montefrio in southern Spain. The number of the population living in a dispersed settlement reached its peak in the 1940s – 1950s when it significantly exceeded the number of the population in the core part, and since then it has been continuously declining (Amate et al. 2016).

The second half of the 20th century and the beginning of the 21st century in East-Central Europe were characterized by dynamic socio-economic changes which also left traces in the landscape (Demek et al. 2012, Haase et al. 2007, Kanianska et al. 2014). In addition to these regional driving forces of landscape changes, the local specificities of Hrušov were of crucial importance – a dispersed settlement by its genesis different from most of the dispersed settlement types in the near and distant surroundings, position on the ethnical Slovak-Hungarian divide, marginal position towards Czechoslovak, and later Slovak central regions, and last but not least, the confessional exclusivity of the local population towards the surrounding villages. These factors underlined conservatism of the local people which, besides some negatives, also had significant positive consequences reflected in their self-confidence, independence, activism and a high level of self-sufficiency in processing of food and articles for everyday life.

In 1950, hamlets were the focal points of agricultural production, most of the farm animals were housed here (Brada et al. 2014). The appearance and functioning of the agricultural landscape between 1950 and 1979 changed only very little. Here too, the mechanization and chemicalization of agriculture has been applied, increasing its efficiency but not to the extent as it was in regions with collectivized farms (Brada et al. 2014). However, this has not fundamentally affected the agricultural landscape pattern. It can be assumed that most of the significant changes in LC during the 1st period (1950 – 1986) concentrated into a relatively short 7-year final period after 1979 when the collectivization process began. The process of migration from hamlets to the core began already before 1980, while the total population of the municipality did not decrease (Matrika Hrušov). New job opportunities and a more comfortable life caused the emigration of many young people to the cities, and the relationship between people and the land has been torn down. In 1989, shortly after 1986 which is a turning point between the monitored

periods, another turning point occurred in the political and economic development of former Czechoslovakia – the end of socialism, advent of democracy and market economy with all positives and shortcomings, and establishment of the independent Slovak Republic in 1992. Socialist collectivization model ended; part of the land was given back to the original owners. A new farming cooperative started on part of the agricultural land in 2001. New farmers were facing the problems of fragmented and unclear land ownership which were not solved during the socialist era. On the other hand, cultivation efficiency has increased.

For Hrušov, as well as for other municipalities in Slovakia with dispersed settlements, it is very important whether the declarations can be adopted and implemented, and especially specific tools and measures to preserve values and alleviate the existing restrictions and disadvantages associated with life and by farming in the landscape with dispersed settlement. Several measures promised by the new Slovak government for the preservation of the rural landscape, cultivation of traditional crops, breeding of domestic animals and sale of food from the yard seem to be challenging. For the first time in history, the Slovak government has explicitly (even repeatedly) committed itself to support the renewal and preservation of the traditional dispersed settlement management systems. Similar measures have been introduced in the past by the governments of several European countries where similar settlements occur (see, e.g. Leitmeir, 1983). The bill, which regulated the conditions of such support for Slovakia, was submitted to a group of deputies as early as 2015 (and repeatedly since then), but it never received enough support. The explanatory memorandum to the bill states, among other things, that dispersed settlements is one of the distinctive manifestations of socio-economic activity, conditioned by specific natural and historical environments. In many EU countries, inhabitants of such remote areas are financially favoured, e.g. there is a possibility for them to obtain the governmental subsidies (e.g. Finland, Austria and Romania). In Greece, families with children living in mountainous and disadvantaged areas are supported by annual financial support. In Sweden, there are legal regulations for sparsely populated areas, the aim of which is to create equal economic conditions for all municipalities and regions in the country (NR SR, Parlamentná tlač 1532, 2015). For more on the topic of support for farmers in disadvantaged areas in various European countries, see e.g. Parliamentary Institute of the National Council of the Slovak Republic (2018).

CONCLUSION

Unlike most dispersed settlements regions in Europe and Slovakia, the character of the dispersed settlement in Hrušov has been generated historically during a relatively short period of time which was one of the reasons why a specific type of a scattered settlement arose there. The local specificities lie at the three areas: set-

tlement-demographic (double-residency model), political-economic (delayed and relatively short-term collectivization of agricultural production) and finally geoecological (high proportion of plains in the highest altitudes of the area which have the most suitable conditions for agriculture cultivation). Concurrence of these specificities clarifies that the obtained results differ in some aspects from the results obtained in other areas with dispersed settlement in Slovakia.

The transformation of local conditions in Hrušov and in the cultural landscape with dispersed settlement through the integration into systems of new political, socio-economic and cultural contexts is underlying the question of how to adapt to these new conditions. Our research showed that some people (mostly local leaders) are able to cope with the new conditions, that is, to learn the new ideas, skills, technologies or procedures perceived necessary to function within the new system in order not to remain marginalised.

The study contributes to the dissemination of knowledge of the dispersed settlement landscape which is a traditional and important part of the settlement system in many countries and is one of the types of a historical cultural landscape.

The results of the study can serve as inspiration for local plans for social and economic development as well as for planning the sustainable development of a region with a specific dispersed settlement.

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REFERENCES

ALMEDAL, S. (1983). Changes in Rural Settlement in Northern Norway in the 1970´s. *Norther and Mountain Villages under Pressure of Change*. Oulu: IGU.

AMATE, J. I., VILLA, I., JIMENÉZ, F., DE MOLINA, M. G. (2016). The rise and fall of the cortijo system: scattered rural settlements and the colonization of land in Spain's Mediterranean mountains since 1581. *Journal of Historical Geography*, 54, 63-75.

BELČÁKOVÁ, I., PŠENÁKOVÁ, Z. (2013). Špecifiká a krajinné podmienky rozptýleného osídlenia na Slovensku - príklad prírodného, historického a kultúrneho dedičstva. In Merunková, I. ed., *Krajina v proměnách času.* 18. kolokvium kateder záhradní a krajinářské tvorby s mezinárodní účastí 26. 9. 2013 v Praze. Praha: Česká zemědelská univerzita, pp.32-37.

BENDÍK, P. ed. (2019). *Hrušov Obec tradičnej ľudovej kultúry* (A village of traditional folk culture). Hrušov: Obec Hrušov.

BIRCH, B. P. (1967). The Measurement of Dispersed patterns of Settlement. *Tijdschrift voor Economische en Sociale Geografie,* 58, 68-75.

BOTÍK, J. (1980). Dvojrezidenčnosť ako dôsledok lazového osídlenia. *Slovenský národopis*, 28, 1, 78-83.

BRADA, P., ZRNÍKOVÁ, K., BRLOŠ, J. (2014). *Roľníctvo v Hrušove*. Hrušov: Obecný úrad.

ČERNE, A. (2004). Dispersed and decentralised settlement system. *Dela*, 21, 83-95.

DEFFONTAINES, P. (1931). Un type de peuplement dispersé en Slovaquie. In: Príspevky k praveku, dejinám a národopisu Slovenska. *Sborník archeologického a národopisného odboru Slovenského vlastivedného múzea za rok 1924 – 1931*. Bratislava: Nákladom spoločnosti Slovenského vlastivedného múzea, pp. 90 – 96.

DEMEK, J., MACKOVČIN, P., SLAVÍK, P. (2012). Spatial and temporal trends in land-use changes of Central European landscapes in the last 170 years: a case study from the south-eastern part of the Czech Republic. *Moravian Geographical Reports*, 20, 3, 2–22.

DÉRY, S., LEIMGRUBER, W., ZSILINCSAR, W. (2012). Understanding Marginality: Recent Insights from a Geographical Perspective. *Hrvatski Geografski Glasnik*, 74, 1, 5 – 18.

DOVRING, F., DOVRING, K. (1965). Agricultural Settlement and the Layout of Land. In: *Land and Labor in Europe in the Twentieth Century*. Studies in Social Life. Dordrecht: Springer.

EHLERS, E. (1974). Recent Trends and Problems of Agricultural Colonization in Boreal Forest Lands. In Ironside, R.D., ed., *Frontier Settlement*. Univ. of Alberta, pp. 60 - 78.

EPA - Environmental Protection Agency Ireland (2008). *State of Environment. Report 2008*. Chapter Land use, (pp.158 – 171) [accessed on 9 October 2019]. Retrieved from:https:// www.epa.ie/pubs/ reports/indicators/ irlenv/43366%20EPA%20report%20chap%20111.pdf.

European Commision (2013*). Agricultural Policy Perspectives Brief N°5*/ December 2013*. Overview of CAP Reform 2014-2020 [accessed on 18. March 2020]. Retrieved from: https://ec.europa.eu/info/food-farming-fisheries/key-policies/common-agricultural-policy_en

European Landscape Convention of the Council of Europe (2000) [accessed on 17 March 2020]. Retrieved from: https://www.coe.int/en/web/landscape.

FEKETE, Š. (1947). Typy vidieckeho osídlenia na Slovensku. *Spisy Slovenskej zemepisnej spoločnosti, 1, 7-17.*

FERANEC, J., ŠÚRI, M., CEBECAUER, T., OŤAHEĽ, J. (2002). Methodological aspects of landscape changes detection and analysis in Slovakia applying the CORINE land cover databases. *Geografický časopis*, 54, 3, 271-288.

FLETCHER, R. (2019). Trajectories to Low-Density Settlements Past and Present: Paradox and Outcomes. *Frontiers in Digital Humanities* [accessed on 20 April 2020]. Retrieved from: https//:doi.org/10.3389/fdigh.2019.00014.

Framework Convention on the Protection and Sustainable Development of the Carpathians (Carpathian Convention, 2003), [accessed on 10. March 2020]. Retrieved from:http://www.carpathianconvention.org/

FROLEC,V. (1980). „Kolibarská" sídla ve východní části Balkánskeho polostrova. *Slovenský národopis*, 28, 1, 64-67.

Google Earth Pro. 8.7. 2016, *Hrušov*, Slovakia, 48°09 '15.01"N, 19°05 '28.58"E, eye altitude 7000 m.

HAASE, D., WALZ, U., NEUBERT, M., ROSENBERG, M. (2007). Changes to Central European landscapes – Analysing historical maps to approach current environmental issues, examples from Saxony, Central Germany. *Land Use Policy*, 24, 1, 248-263

HALÁS, M. (2008). Priestorová polarizácia spoločnosti s detailným pohľadom na periférne regióny Slovenska. *Sociologický časopis/Czech Sociological Review*, 44, 2, 349-369.

HALÁS M., HURBÁNEK P. (2008). Identifikácia a klasifikácia periférnych regiónov (pokus o syntézu). In Džupinová E., Halás M., Horňák M., Hurbánek P., Káčerová M., Michniak D., Ondoš S., Rochovská A., eds., *Periférnosť a priestorová polarizácia na území Slovenska*. Bratislava: Geo-grafika, pp.109-136.

HANUŠIN, J., LACIKA, J. (2017). Vybrané environmentálne súvislosti zmien historickej lazníckej krajiny (na príklade obce Hrušov, okres Veľký Krtíš). *Geografický časopis*, 70,1, 57-77.

HANUŠIN, J., LACIKA, J. (2018). Transformácia historickej kultúrnej krajiny s rozptýleným osídlením (na príklade obce Hrušov, okres Veľký Krtíš). In Ira,V., Hanušin, J., eds., *Geographia Slovaca* 33, Premeny a ochrana historickej kultúrnej krajiny na Slovensku Bratislava: Geografický ústav SAV, pp. 85-120.

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HOČEVAR, M. (2012). Dispersed settlement in detached houses: Attitudes over the residential space consumption in Slovenia. *Sociologija,* 54, 1, 123-152.

HOFFMANN, R. C. (2014). *An Environmental History of Medieval Europe*. Cambridge: University Press.

HORVÁTH, P. (1980). Historický prehľad vzniku a rozvoja chotárnych sídiel v slovenskej časti Karpát. *Slovenský národopis*, 28, 1, 8-18.

HROMÁDKA, J. (1943). *Všeobecný zemepis Slovenska*, *Slovenská vlastiveda I*. Bratislava: SAVU.

HUBA, M. (1986). *Krajinná syntéza oblastí kopaničiarskeho osídlenia na príklade Javorníkov*. PhD. thesis. Bratislava: Geografický ústav SAV.

HUBA, M. (1989). O niektorých otázkach genézy a súčasného stavu kopaničiarskeho osídlenia na území Slovenskej socialistickej republiky. *Geografický časopis*, 41, 2, 138-155.

HUBA, M. (1990). O perspektívach kopaničiarskeho osídlenia a kopaničiarskej krajiny na území Slovenskej republiky. *Geografický časopis,* 42, 2, 113-130.

HUBA, M. (1997). Kopaničiarske osídlenie, životné prostredie a trvalo udržateľný spôsob existencie. *Životné prostredie,* 31, 2, 61-66.

HUBA, M., IRA, V. (2020). *Vyhodnotenie riadených rozhovorov s mienkotvornými osobnosťami v obci Hrušov*. Manuscript, Bratislava: Geografický ústav SAV.

HUDSON, J. C. (1969). A location theory for rural settlement. *Annals of the Association of American Geographers*, 59, 2, 365 - 381.

CHIFFELE, F. (1983). Swiss Agricultural Policy in Mountainous Areas. In *Norther and Mountain Villages under Pressure of Change*. Oulu: IGU.

CHOTEK, K. (1906). Cerovo. Národopisní studie. *Národopisný věstník československý* č. 1.

IRA, V. (2019). Impact of Rural Restructuring on the Time-Space Behavioural Patterns in a Marginal Area. In Leimgruber, W., Chang, C., eds., *Rural Areas Between Regional Needs and Global Challenges, Perspectives on Geographical Marginality* 4. Springer Nature Switzerland AG, pp. 17-29.

IRA V., MADAJOVÁ M., CHRENKA B. AND FACUNOVÁ, R. (2014). Časovo-priestorový kontext činností človeka: prípadová štúdia obyvateľov marginálneho horského územia. *Geografický časopis*, 66, 4, 341-362.

JANŠÁK, Š. (1929). Príspevok k štúdiu osídlenia Slovenska. Obce a kopanice. *Sborník muzeálnej slovenskej spoločnosti,* 23, 3-4, 93-111.

KAMASOVÁ, M., BENDÍK, P. (1996). *Hrušov. Z histórie a súčasnosti obce*. Hrušov: Obecný úrad.

KANIANSKA, R., KIZEKOVÁ, M., NOVÁČEK, J., ZEMAN, M. (2014). Land-use and land-cover changes in rural areas during different political systems: A case study of Slovakia from 1782 to 2006. *Land Use Policy,* 36, 554– 566.

KOLEKTÍV. (1990). ÚPN – Z. *Hrušov, laznícke osídlenie*. Sprievodná správa. Banská Bystrica: Stavoprojekt, š. p. Ateliér 4.

KOVÁCS, A. D., FARKAS, J. Z. (2011). Problems and development concepts for scattered farms in Hungary – a case study from the "Kiskunság region". *Hrvatski geografski glasnik*, 73, 2, 165 – 177.

LAKE, J., EDWARD, B., BANNISTER, N. (2014). Farmsteads and Landscapes in Kent. *Archaeologia Cantiana,* 134, 105 – 139.

LAPIN, M., FAŠKO, P., MELO, M., ŠŤASTNÝ, P., TOMLAIN, J. (2002). Klimatické oblasti. Mapa 1: 200 000. *Atlas krajiny Slovenskej republiky.* Bratislava: Ministerstvo životného prostredia Slovenskej republiky, Esprit, s.r.o.

LAUKO, V. (1985). Vývoj a transformácia kopaničiarskeho osídlenia Myjavskej pahorkatiny. *Acta Facultatis Rerum Naturalium Universitalis Comenianae, Geographica*, 25, 35-52.

LEIMGRUBER W. (1994). Marginality and marginal regions: Problems of definition. In Chang C.-Y. D, Jou S.-C, Lu Y.-Y. eds., *Marginality and development issues in marginal regions*. Taipei: National Taiwan University, pp.1–18.

LEIMGRUBER W. (2004). *Between global and local. Marginality and marginal regions in the context of globalization and deregulation*. Aldershot: Ashgate.

LEIMGRUBER W. (2007). Geographical Marginality – past and new challenges. In Jones, G., Leimgruber, W., Nel, E. eds., *Issues in Geographical Marginality*. Papers presented during the Commission Meetings 2001-2004, General and theoretical aspect, CD-Rom. Grahamstown: Rhodes University South Africa, pp.2-11.

LEITMEIR, A. (1983). Urbanisation as Process of Population and Settlement Development in Rural Areas of the Alps. In: *Norther and Mountain Villages under Pressure of Change*. Oulu: IGU.

LUKNIŠ, M. (1950). Detvianska kolonizácia v Gemeri. *Zemepisný zborník*, II., 1 - 2, 1-7.

LUKNIŠ, M. (1980). Kopaničiarske osídlenie v Gemeri. *Slovenský národopis*, 28, 1, 41-50.

MAGLOCKÝ, Š. (2002). Potenciálna prirodzená vegetácia. Mapa 1: 500 000. *Atlas krajiny Slovenskej republiky.* Bratislava: Ministerstvo životného prostredia Slovenskej republiky, Esprit, s.r.o.

MAJORAL, R. (1977). The Consequences of depopulation in the Western Pyrenees of Catalonia. *Iberian Studies,* VI, 1, 24 – 33.

MARTINKA, J. (1927). Morfologické typy slovenských osád. *Sborník muzeálnej slovenskej spoločnosti*, 21, 1, 48-57.

MATTHEWS, A. (2018). The CAP in the 2021–2027 MFF Negotiations. *Intereconomics* 53, 306–311.

Matrika obce Hrušov. (Hrušov Parish register, handwriting). Hrušov: Obecný úrad.

MATSUMOTO, T. (1950). Structure of dispersed settlement and its history the Nagaoka plateau, Kochi prefecture. *Japanese Journal of Human Geography*, 2, 1, 24-38.

MAZÚR, E., LUKNIŠ, M. (1978). Regionálne geomorfologické členenie SSR. *Geografický časopis*, 30, 2, 101-125.

MEDVECKÝ, A. (1905). *Detva*. Ružomberok: Kníhtlačiareň Karla Salvu.

MÉSÁROŠ, J. (1966). K dejinám kopaníc a kopaničiarskeho osídlenia na Slovensku. *Vlastivedný časopis (Pamiatky a múzeá),* 15, 4, 173-179.

MIKUŠ, R., MÁLIKOVÁ, L., LAUKO, V. (2016). An introductory study of perceptual marginality in Slovakia. *Bulletin of Geography, Socio-economic Series*, 34, 47–62.

NAHÁLKA, P. a kol. (1966). *Výskum rozptýleného osídlenia na Slovensku*. Bratislava: VÚPS SF SVŠT.

Národný archív SR. *Sčítanie ľudu k 1. marcu 1950*. Zložka Hrušov okres Šahy.

NR SR, Parlamentná tlač 1532, (2015). *Návrh skupiny poslancov Národnej rady Slovenskej republiky na vydanie zákona o podpore zachovania územia s rozptýleným osídlením a jeho obyvateľov (laznícky zákon) a o zmene a doplnení niektorých zákonov.* [accessed on 24 April 2020]. Retrieved from: https://www.nrsr.sk/web/Default.aspx?sid=zakony/zakon& Master ID =5471.

OKAMOTO, K. (1955). Dispersed settlement and its relation to the surface configuration on the deltaic plain of Kanto. *Japanese Journal of Human Geography*, 7, 3, 182-194.

OMASTA, Š. (2010). K niektorým otázkam vyčleňovania území s rozptýleným osídlením: príklad Myjavskej kopaničiarskej podoblasti. *Geographia Cassoviensis*, 4, 2, 141-146.

OMASTA, Š. (2011). Rozptýlené vidiecke osídlenie – socioekonomické a historické aspekty. *Životné prostredie,* 45, 1, 43-47.

OŤAHEĽ, J., FERANEC, J., KOPECKÁ, M., FALŤAN, V. (2017). Modifikácia metódy CORINE Land Cover pre identifikáciu a zaznamenávanie tried krajinnej pokrývky v mierke 1:10 000 na báze príkladových štúdií z územia Slovenska. *Geografický časopis* 69, 3, 189-224.

OWEN, S., SARLOV-HERLIN, I. (2009). A sustainable development framework for a landscape of dispersed historic settlement. *Landscape research*, 34, 1, 33-54.

PELC, S. (2017). Marginality and Marginalization. In Chand, R., Nel, E., Pelc, S. eds., *Societies, Social Inequalities and Marginalization. Marginal Regions in the 21st Century.* Springer Nature, pp.13-28

PETROVIČ, F. (2006 a). Vzťah rozptýleného osídlenia k morfometricko-polohovým vlastnostiam reliéfu. *Acta Environmentalica Universitatis Comenianae (Bratislava),* 14, 1, 105–113.

PETROVIČ, F. (2006 b). The changes of the landscape with dispersed settlement. *Ekológia (Bratislava)*. 25, (Suppl. 1), 201–211.

POLÁČKOVÁ L. (2010). Parciálne prístupy k štúdiu marginality. *Acta Geographica Universitatis Comenianae*, 54, 1, 157-169.

PRELOVSKÁ, D. (1987). Kopanice v Nitrianskej stolici v polovici 18. storočia. *Agrikultúra*, 21, 41-65.

PRIEČKO, M. (2003). Spoločensko-politické zmeny po roku 1948 a ich dopad na spôsob života v kysuckých vrchárskych osadách. *Národopisný zborník,* 14, 135-151.

PRIEČKO, M. (2015). *Socioekonomické perspektívy rozptýleného osídlenia na Slovensku (komparácia lokalít Málinec, Nesluša a Valaská Belá)*. Trnava: Univerzita sv. Cyrila a Metoda.

Program hospodárskeho a sociálneho rozvoja BBSK 2015-2023 (2015). (Programme of the Economic and Social Development of the Banská Bystrica Region). [accessed on 26 March 2020]. Retrieved from: https://www.bbsk.sk/eSlu%C5%BEby/Region%C3%A1lnyrozvoj/Programhospod%C3%A1rskehoasoci%C3%A1lnehorozvojaBBSK2015-2023.aspx.

Program rozvoja obce Hrušov na roky 2015-2024. (Development Programme of Hrušov Village for Years 2015 – 2024). [accessed on 17 March 2020]. Retrieved from: http://www.hrusov.sk/download_file_f.php?id=667070.

Programové vyhlásenie Vlády Slovenskej republiky na r. 2020 – 2024 (Programme Declaration of the Slovak Government for Years 2020 - 2024). [accessed on 13 May 2020]. Retrieved from: http://mepoforum.sk/wp-content/uploads/2020/04/Vl%C3%A1da-SR-Programove-Vyhlasenie-2020-2024.pdf.

RIKKINEN, K. (1981). The Lapp Villages of the Northern Kola Peninsula in 1980´s. *Fennia*, 159, I, 201 - 207.

ROBERTS, B. K., (1996). *Landscapes of settlement. Prehistory to the present*. London, New York: Routlege.

ROSTANKOWSKI , P. (1982). Die Entwicklung osteuropäischer ländlicher Siedlungen und speziell der Chutor-Siedlungen. *Osteuropastudien der Hochschulen des Landes Hessen*. Berlin: Duncker & Humblot.

SCHWARTZ, G. (1989). *Algemeine Siedlungsgeographie. Teil 1. Die ländliche Siedlungen Die zwischen Land und Stadt stehenden Siedlungen*. Berlin, New York: Walter de Gruyter.

SIEFERLE, R. P. (2001). *The Subterranean Forest: Energy Systems and the Industrial Revolution*. Cambridge: The White Horse Press.

SITÁR, E. (1967). Kopaničiarske osídlenie na Slovensku. Niektoré otázky súčasného stavu. *Vlastivedný časopis*, 16, 125 - 135.

SPIŠIAK, P. (1998). Vývoj obyvateľstva v kopaničiarskom osídlení Slovenska. *Geografické informácie,* 5, 18 – 25.

SYMON, J. A. (1959). *Scottish Farming: Past and Present*, Edinburgh.

ŠOLCOVÁ, L. (2008). Vznik a vývoj disperzného osídlenia v Novobanskej štálovej oblasti. *Geographia Cassoviensis*, 2, 1, 171 – 175.

ŠPULEROVÁ, J., ŠTEFUNKOVÁ, D., DOBROVODSKÁ, M. et al. (2017). *Historické štruktúry poľnohospodárskej krajiny Slovenska.* Bratislava: VEDA - vydavateľstvo SAV.

Štatistický lexikón obcí Slovenskej republiky 1992: podľa správného členenia k 30. júnu 1992 a výsledkov sčítánia ľudu, domov a bytov k 3. marcu 1991. Bratislava: ŠEVT.

Štatistický lexikón obcí Slovenskej republiky 2011. [accessed on 11 November 2019]. Retrieved from: https:// slovak.statistics.sk/wps/wcm/connect/cd33d897-7314-41d0-a12ba95e537d7a39/Statisticky_lexikon_obci_Slovenskej_republiky_2011.pdf?MOD= AJPERES&CVID= kRHTpsy&CVID=kRHTpsy&CVID=kRHTpsy&CVID= kRHTpsy.

ŠVECOVÁ, S. (1975). *Kopanicové sídla a dedina. Národopisná štúdia o spoločenských vzťahoch medzi obyvateľmi jednej slovenskej obce*. Praha: Univerzita Karlova.

ŠVECOVÁ, S. (1980). Význam komasácie pre vývoj lazového osídlenia v Honte. *Slovenský národopis*, 28, 1, 35-40.

ŠVECOVÁ, S. (1984). *Lazy v 19. a 20. storočí. (Vývoj roľníckych chotárnych sídiel v oblasti Krupinskej planiny).* Praha: Univerzita Karlova.

ŠVECOVÁ, S. (1988). Lazy a lazníci. In Botík, J. ed., *Hont-tradície ľudovej kultúry*. Martin: Osveta, pp. 392- 425.

TAKAKI, M. (1958). Establishment and function of dispersed settlements. *Japanese Journal of Human Geography,* 10, 4, 268-280.

TINER, T. (1983). Transport Problems of Small Mountain Villages in Nothern Hungary. In *Northern and Mountain Villages under Pressure of Change.* Oulu: IGU.

TROHA, A. (2017). Changing settlement patterns in areas of autochtonous dispersed settlement. *Scientific journal*, 5. Ljubljana: University of Ljubljana, Faculty of Architecture and Faculty of Civil and Geodetic Engineering.

Územný plán Veľkého územného celku Banskobystrický kraj (ÚPN VÚC BBK) - Zmeny a doplnky 2014. [accessed on 10 February 2020]. Retrieved from: https://www.bbsk.sk/Portals/0/01%20Urad%20BBSK/Odd_uzemneho%20planovania/VZN_BBSK_%2027_2014.pdf

VAN DE VELDE, L., VAN EETVELDE, V., ANTROP, M. (2010). A multistep method for historical characterisation of rural settlements in Belgium, results for the province of Antwerp. *Proceedings of the Latvian academy of sciences, ser. A*, 66, 3, 93-104.

VARSÍK, B. (1972). Osídlenie Myjavy a Myjavskej pahorkatiny do začiatku 17. storočia. *Zborník PFUK, Historica* XXIII, 91 - 163.

VEREŠÍK, J. (1974). Vidiecke sídla. *Slovensko – Ľud 3, 1. časť*. Bratislava: Obzor, pp. 463-521.

WOODS, M. (2005). *Rural geography: processes, responses and experiences in rural restructuring*. London: Sage.

ZRNÍKOVÁ, K., HRČKOVÁ, L. (2012). *Výskum historických krajinných štruktúr a ich stupňa zachovalosti pre potreby starostlivosti o krajinu vo vybraných katastrálnych územiach Hriňová a Hrušov.* Krajinno – ekologická štúdia. Zvolen: Technická univerzita vo Zvolene.

ŽUDEL. J. (2010). *Osídlenie Slovenska v neskorom stredoveku.* Bratislava: Veda.