MAPPING AND TYPOLOGY OF UNUSED LANDS IN THE TERRITORY OF THE TOWN KUTNÁ HORA (CZECH REPUBLIC)

ZDENĚK LIPSKÝ, PAVEL KUKLA

Charles University in Prague, Faculty of Science, Department of Physical Geography and Geoecology

ABSTRACT

The paper presents results of the field mapping of abandoned lands in the administrative district of the city of Kutná Hora in the Central Bohemia, comprising 7 cadastral territories stretching over a total area of 33 square kilometres. Field mapping on the scale 1 : 10,000 was effectively corrected on the basis of the intepretation of detailed aerial photographs. The present survey provides a simple typology of all mapped areas of abandoned lands according to their origination, age and the character of their current vegetation communities.

The results confirm a high diversity and relatively high share of abandoned lands in suburban landscape. They cover more than 17% of the surveyed territory and can particularly be found on the outskirts of the city, forming a transition from cityscape to rural landscape. They originated in all 3 defined time periods: before 1990, 1990–2000 and after 2000. Post-agrarian categories represent more than 63%, post-mining 10% and post-industrial 8% of all abandoned lands. The lands have crucial ecological and social functions. Their mapping and documentation can form an interesting basis for nature and landscape protection, as well as for the territorial and landscape planning.

Key words: landscape changes, abandoned land, suburban landscape, succession of communities, new wilderness, Czech Republic

1. Introduction

The contemporary trend in the development of cultural landscapes in Europe, including the Czech Republic, is characterized by two opposing processes – intensification and extensification (Fjellstad, Dramstad 1999; Lipský 2010). In many areas the farming practises associated with landscapes have lost their competiveness. In these areas, typically with a low productivity of soils, land management is at risk (Raes 2008). Both processes are complementary and lead towards a considerable polarization in landscape use (Jongman, Bunce 2000). In the close vicinity of the intensely used areas appear abandoned areas in which natural and nature-related communities develop in successive processes. The causes of these phenomena are quite well-known, having been analyzed in a number of works by both Czech and foreign authors (e.g. Antrop 2008; Lipský 2007). Only slight attention, however, has been given to the extent of the unused areas and communities developing within them, as well as to their influence on the character of the landscape, biodiversity and the ecological stability of the landscape. These areas are not registered anywhere and have to be located individually in the terrain or by interpreting aerial photographs.

This process has produced an interesting phenomenon – the existence of a "new wilderness" in the landscape. The word "wilderness" expresses here the opposite pole to the cultivated landscape. The attribute "new" emphasizes the difference of this type of wilderness from the original "old" wilderness. The latter is represented by small remnants of reservations of primeval forests with climax communities that have existed and developed for hundreds or thousands of years. The new wilderness is much younger. It comes into being in cultivated areas that have been used by man with a different intensity and for different periods of time. So far it has been characterized by early successive stages of vegetation. The "old" wilderness is quite unique in our conditions and therefore precious and protected. The new wilderness is usually viewed as unwanted and therefore does not enjoy any kind of protection. In spite of that, this type of wilderness has been constantly increasing in our landscape (Lipský 2009). Approaching 2000, there were approximately 350,000 hectares of abandoned land in the Czech Republic and this number has been increasing year-on-year.

After 50 years of the process of abandonment under way in the landscape, we can find varied mosaics of nature-related ecosystems in different successive stages, corresponding to their age and site-specific conditions (Lipský 2007). The new wilderness typically develops in abandoned agrarian lands as well as deserted quarries, brickfields, on heaps and alongside neglected water streams. In these places man has retreated from his constant struggle with nature, letting it develop its natural processes, the succession of wood species, substitute grass vegetation and rushes, and thereby also develop its natural ecological stabilization.

The problems of the origination and development of the new wilderness, its terminology, related philosophical questions and actual examples of its existence in the Czech cultivated landscape are examined in more detail in works by I. Míchal (2001, 2002), Z. Lipský (2007, 2009) and Z. Lipský et P. Kukla (2009).

To be quoted as:
Lipský, Z. – Kukla, P. (2012): Mapping and typology of unused lands in the territory of the town Kutná Hora (Czech Republic) AUC Geographica, 47, No. 1, pp. 65–71

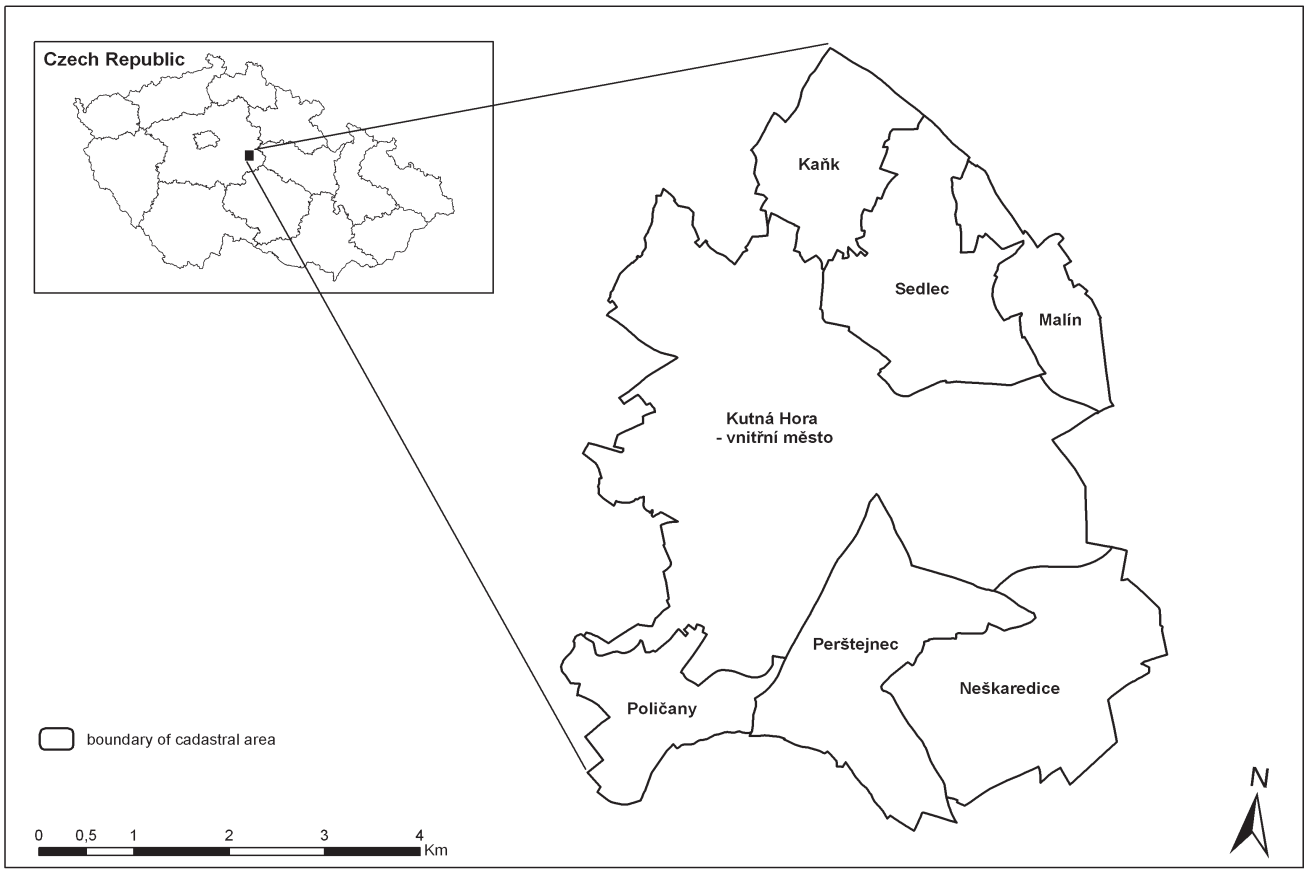

Fig. 1 Localization map of the area under investigation

This article deals with the abandoned areas in the immediate vicinity of the city of Kutná Hora located in Central Bohemia (Fig. 1). The objective was to map abandoned lands in suburban landscape, to explain causes of their origin, analyse their present extent and functions in suburban landscape.

2. Delimitation and Characteristics of the Surveyed Territory

The administrative district of the Town of Kutná Hora comprises 7 cadastral territories (Kutná Hora, Kaňk, Malín, Neškaredice, Perštejnec, Poličany, and Sedlec) with a total area of 3,305 hectares (Fig. 1). The altitude of the town territory ranges from 205 to 359 meters above sea level and its relief is a slightly hilly area. The contemporary landscape structure expressed by the use of areas and the landscape cover is rather diversified, while individual cadastres within the administrative district convey big differences (see Table 1). The southern part of the territory (i.e. the land registers of Neškaredice, Perštejnec and Poličany) still has the character of agrarian landscape dominated by arable land, contrasted with elements of a suburban landscape, such as an industrial zone and allotted gardens. The northern part (i.e. the land registers of Kaňk, Kutná Hora, Sedlec and Malín) has the character of urban and suburban landscape with a large portion of built-up areas, orchards, suburban forests and other areas (Table 1). The landscape in the territory of the town and in its immediate vicinity is marked with various specific features of historical development that significantly show, even in its present character:

1. Intense mining activities that began as early as the Middle Ages, lasted for at least 700 years and only came to an end in 1985 (in the 15th century prior to the discovery of America this used to be the largest silver extraction site in the world, ensuring the wealth and prosperity of the then Kingdom of Bohemia; at that time Kutná Hora was the second largest town in Bohemia, following Prague);
2. Stagnation of the town in the 18th and 19th centuries and its belated industrialization: until the 19th century the town generally developed within its city walls behind which there were arable lands, villages and agricultural settlements;
3. Afforestation of heaps and other mining forms since the end of the 19th century, founding of a green belt of suburban forests and parks;
4. Establishing orchards in the 20th century across an area of hundreds of hectares, complementing the green belt around the town;

5. Socialist industrialization in the 1960's – building engineering works (ČKD) on the fertile agrarian land southward of the city, building housing estates and expanding the urban built-up areas at the expense of free landscape;
6. Dissolution and transformation of socialist state-run farms, abandoning and overgrowing various orchards, expanding commercial and service zones and, on the contrary, decreasing various industrial activities following 1990.

In the process of mapping, considerable attention was devoted to overgrowing of unused areas by successive wood species, mostly bushes (*Rosa canina, Crataegus laevigata, Ligustrum vulgare, Swida sanguinea, Sambucus nigra, Prunus spinosa* and many others). According to the proportional covering of the area with shrubbery – estimated in the terrain and made accurate on the basis of aerial photographs – the following categories of unused areas have been classified:

Tab. 1 Land use in the administrative district of the town Kutná Hora in official statistical categories in 2005 (in hectares)

Cadastral area	*Arable lands*	*Permanent grasslands*	*Permanent cultures*	*Total agricultural lands*	*Forests*	*Water*	*Built-up areas*	*Others*	*Total*
Kaňk	25.9	8.4	130.5	164.9	16.3	0.0	9.8	41.6	232.7
Kutná Hora	520.6	28.6	353.2	902.3	136.7	16.1	127.7	262.2	1,444.9
Malín	104.0	6.1	20.4	130.4	0.0	3.6	14.2	28.4	176.6
Neškaredice	400.8	6.7	9.9	417.5	0.5	8.3	6.9	26.5	459.7
Perštejnec	255.6	19.4	10.2	285.2	16.5	6.9	38.7	59.8	407.2
Poličany	158.5	2.0	7.3	167.8	15.7	0.2	5.0	22.8	211.6
Sedlec	74.1	1.3	66.0	141.3	65.8	0.7	36.8	127.6	372.3
Total	1,539.5	72.5	597.4	2,209.4	251.6	35.8	239.2	568.9	3,305.0

Source of data: ČÚZK

3. Methodology of Mapping and Classification of Unused Areas

The object of our survey is all the unused and unfarmed areas in the administrative district of the town of Kutná Hora. These areas, located mostly outside the continuous urban built-up area, have been charted directly in the terrain in the rough map 1 : 10,000. The map scale has inevitably resulted in some cartographic limitations: the minimum mapped area was designed to be approximately 400 m^2 (20 × 20 m), the minimum width of the area 10 m so that the reality could be expressed on the map scale. In the case of line elements (narrower than 10 m) their minimum length was designed to be 40 m. The same size parameters (i.e. the minimum area 400 m^2, the minimum line length 40 m) in mapping habitats is recommended by European methodology, as applied in the BioHab Project (Bunce et al. 2005).

The terrain chart was made more accurate and correct during computer processing based on the actual situation as mapped from colour orthophotographs (resolution 0.5 m) using method of visual interpretation with creation of polygon layer according to the defined legend. Aerial photographs can substantially facilitate the mapping of borders and the determination of the wood species covering a given area. Some characteristics, such as a type of community, presence of farming and the way of management, can only be identified in a terrain survey.

1. 0%, maximum up to 10% (grass-herbal communities, mostly initial successive stages),
2. 10.1–50%,
3. 50.1–90%,
4. 90.1–100% (continuous shrubbery growths or transitions to forest growths).

The unused areas are further divided into 3 categories according to age: originated (abandoned) prior to 1990, originated from 1990–2000 and originated after 2000. This classification is based on qualified assessments supported by a well-founded individual knowledge of the development of the surveyed area over the last 50 years.

Finally, the third criterion for classification of unused areas is based on their origination, on what type of surface they develop. The last type of land use prior to abandoning is the decisive criterion in this type of classification. According to this genetic criterion unused areas are divided into 9 categories:

1. Abandoned arable land (post-agrarian 1),
2. Abandoned grass growth (post-agrarian 2),
3. Abandoned orchards and gardens (post-agrarian 3),
4. Abandoned mining areas (post-mining),
5. Abandoned industrial areas and the like (post-industrial),
6. Abandoned traffic and communication areas and lines (including communication causeways and cuts),
7. Abandoned areas alongside water flows (line and belt elements),

8. Abandoned, covered and overgrown water areas (post-pond),
9. Other abandoned and unused areas (e.g. erosive ravines overgrown with shrubs).

For each mapping unit, 3 categories of qualitative data have been collected: (i) age of abandoned area; (ii) stage of its overgrowing by wood species and (iii) its genetic type The terrain mapping took place in the period of December 2008 – February 2009. In this non-vegetative period the unused areas can be unambiguously recognized due to the variably high, dry and uncropped biomass. The structure of wood growths, as well as the area covered by shrubs, which are more permeable, can be well discerned. Damp areas, rushes and other types of swampy ecosystems, are in fact safely passable only in the winter freezing season. The ideal condition for mapping – with respect to the passability of the landscape – is dry frost, but even a touch of snow does not prevent identification and mapping of unused areas. The vegetative period, on the contrary, is undoubtedly more suitable for a more detailed determination of vegetative structures, especially the spectrum of their botanical species.

4. Results

In the mapped areas we have discovered altogether 566.6 hectares of unused areas, i.e. more than 17% of the total area (Table 2). Differences in individual cadastral areas are caused by their different relief, historical development and contemporary use of the landscape. A smaller share of unused areas can be found in the agrarian cadastres of Neškaredice, Perštejnec and Poličany; a significantly higher share is found in typically suburban cadastres, among which Kaňk and Sedlec are the ones most affected by the mining industry.

Tab. 2 The total area of unused lands in the administrative district of the town Kutná Hora

Cadastral area	*Area of unused lands*	
	Absolute in hectares	*Relative in percentages of the cadastral area*
Kaňk	55.61	23.85
Kutná Hora	222.35	15.41
Malín	29.62	16.76
Neškaredice	40.03	8.65
Perštejnec	61.36	14.95
Poličany	11.76	5.56
Sedlec	145.84	38.98
Total	566.58	17.11

Source of data: field mapping and measurements

Table 3 and Fig. IV (colour appendix) show that the unused areas have originated in all 3 indicated periods. Again, there are differences among the agrarian cadastres of Neškaredice, Perštejnec and Poličany, in which the majority of abandoned areas originated prior to 1990 as they had been considered unsuitable for socialist agrarian mass-production. These are particularly the steep valley slopes of Křenovka between Perštejnec and Neškaredice, which today are overgrown by almost continuous growths of shrubbery. The entire valley functions as an important bio-corridor in the agrarian landscape. The high growth in the unused areas in the cadastres of Kutná Hora and Sedlec in the period between 1990 and 2000 is related to the break-up of the state farm, abandoning of part of the peach-tree orchards and currant plantations and the restitution of agrarian lands by their owners, who are not, however, interested in farming (Karel Schwarzenberg and a number of other small proprietors).

Tab. 3 Types of unused lands according to the age (in percentages from the entire area of unused lands)

Cadastral area	*Unused lands originated*		
	< 1990	*1990–2000*	*> 2000*
Kaňk	30.7	29.4	39.9
Kutná Hora	29.6	41.1	29.2
Malín	48.8	23.2	28.0
Neškaredice	76.1	16.5	7.4
Perštejnec	52.2	11.2	36.6
Poličany	53.4	1.7	44.9
Sedlec	32.3	40.8	26.7
Total	37.6	33.2	29.2

Source of data: field mapping and measurements

Table 4 should theoretically – at least partially – correspond to the Table 3: if the forest growth represents an overall climax formation, the stage of overgrowing of the respective areas with wood species should depend on their age. The reality is not unambiguous because especially in the post-mining area category, the unfavorable edaphic conditions effectively hinder the succession of wood species. In some areas, for example, even after 50 years, the grass-herbal communities with rare xeroterm plants, molluscs and insects still outstay. The extent of the overgrowing of these areas with wood species, especially in the case of forest trees, is also particularly influenced by their distance from forests that represent important sources of seeds. Among the forest trees the most expansive species are European Ash (*Fraxinus escelsior*); some growths even have the character of ash pole timbers. Interestingly enough, the protected Cornelian cherry (*Cornus mas*) also occurs in large numbers, especially in abandoned orchards on the southern slope of the Kaňkovské Hills. Distribution of

different categories of abandoned lands after overgrowing by wood species is given in Table 4 and Fig. V (colour appendix).

Tab. 4 Types of unused lands according to the stage of overgrowing (covering) with wood species (in percentages from the entire area of unused lands)

Cadastral area	*Percentage of covering of unused areas with wood species*			
	0(–10)	*10.1–50*	*50.1–90*	*(90,1–)100*
Kaňk	35.2	27.9	31.0	5.9
Kutná Hora	35.1	29.9	22.7	12.3
Malín	29.0	21.5	30.5	19.0
Neškaredice	20.8	29.8	40.5	8.9
Perštejnec	35.2	21.5	31.3	12.0
Poličany	46.4	12.7	26.1	14.8
Sedlec	19.4	47.1	25.6	7.9
Total	30.0	32.4	27.0	10.6

Source of data: field mapping and measurements

According to their origination, the post-agrarian abandoned areas (types 1–3) prevail, forming altogether over 63% of unused areas (Table 5 and Fig. VI – colour appendix). From these, the largest share belongs to orchards (this is a specific feature of the Kutná Hora region), namely in the land registers of Kutná Hora, Kaňk, Malín and Sedlec. Another specific feature is the historically conditioned high share of post-mining areas (most of these are in the land registers of Kaňk and Sedlec), which are, however, absent from the agrarian cadastres of Neškaredice, Perštejnec and Poličany. Owing to the lower industrial development of the Kutná Hora region, post-industrial areas are not so widespread. They have the highest share in the agrarian land registers of Perštejnec and Poličany, as evidenced by the inappropriate placement of the ČKD metallurgic works in the middle of the agrarian landscape in the 1960's.

5. Discussion of the Outcomes and Conclusion

Mapping, classification and subsequent quantification have confirmed the relatively high share and substantial diversity of unused areas in the surveyed territory. These areas have got a tendency to increase in the landscape during last 50 years. They form an integral part of the present environment in the post-industrial age.

However, the outcomes stating the measures of unused lands are rather undervalued, which is a result of methodological limitations in the mapping process. The mapping could not include smaller areas that cannot be expressed on the map scale (e.g. areas around electric wiring posts, kerbs, irrigation and drainage systems and other objects making the continuous mechanized farming of lands impossible in the free landscape), the number of neglected line elements (alongside water flows and watercourses, balks, ditches), which have a similar vegetative character, and also abandoned unused areas located on the premises of enclosed industrial and storage areas that are fenced and generally inaccessible. It was also impossible to map individual small areas in the inner parts of settlements (e.g. abandoned gardens) unless these were publicly accessible.

Another reason for the undervaluation stems from the fact that the unused (abandoned) areas do not include – with certain exceptions – wood growths. The suburban forests on the outskirts of Kutná Hora do not fall into the category of farming forests and therefore their owner is not economically motivated to make intensive management. These forests have been left to their largely spontaneous successive development for a number of decades; only dried trees have been irregularly removed (by self-suppliers who use them for fuel).

The unused areas in the landscape keep growing. At the same time, they carry a substantial landscape-forming, ecological and also hygienic and social impact. In the immediate vicinity of the town they are interwoven with an uncontrolled network of paths mostly used for nature walks, dog walking etc. They concentrate a number of

Tab. 5 The genetic types of unused lands (in percentages from the entire area of unused lands) (Categories 1–9 are described in Methodology)

Cadastral area	*Genetic type of unused lands*								
	1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*
Kaňk	26.2	17.8	14.4	32.2	0	0	0	0	9.4
Kutná Hora	8.8	9.1	53.7	4.7	5.4	0.8	2.1	0	15.5
Malín	30.7	4.5	23.7	3.7	0	18.0	10.3	0.5	8.6
Neškaredice	14.4	39.7	0.2	0	11.8	8.7	10.9	0	14.4
Perštejnec	28.2	17.7	7.1	0	27.5	8.4	1.0	0.5	9.7
Poličany	0.6	5.3	1.1	0	26.3	16.7	1.6	3.2	45.2
Sedlec	12.7	8.1	47.0	19.8	4.9	0.6	1.9	1.5	3.5
Total	15.0	12.5	36.6	10.3	7.7	3.3	2.7	0.5	11.4

Source of data: field mapping and measurements

wild animals (e.g. roebuck, hare and pheasant), birds, insects and other groups of organisms whose occurrence is much higher here than in the surrounding urban and agrarian landscape. Their complementary importance lies in the fact that they offer the opportunity of occasional fruit picking (hip, sloe, mirabelle, dogberry, wild cherry) and gathering of wood for fuel by socially weak groups. In two places (with 100% covering of wood growth) we have even found provisional dwellings inhabited by homeless people who have found a shelter and dry wood for fires there, as well as a place to hide away from the public and authorities.

Some unused areas develop towards close forest stands, while others have retained their forest-steppe character for decades. These areas are the most valuable from the botanical point of view as they accommodate various protected steppe floral species. Further surveys of the unused areas should be carried out in the course of the vegetative period, focusing on more detailed vegetative characteristics. Mapping and documentation of unused areas can provide an interesting source for nature and landscape protection, as well as for territorial and landscape planning.

The resulting landscape changes have a multitude of consequences; for agricultural production, landscape aesthetics, recreational and amenity values of the landscape, and for biodiversity (Fjellstad, Dramstad 1999). Different aspects of the existence of the new wilderness in cultural landscape are now a matter of discussions among scientists, landscape planners, managers and stakeholders. There are very different opinions of specialists as well as stakeholders concerning current landscape changes, especially abandoning of agricultural lands. Extensification and abandonment of lands leads undoubtedly to essential changes in landscape character, landscape values and characteristics. Origin of the new wilderness causes a serious dilemma of nature and landscape conservation: to fight against natural processes of succession and ecological stabilization of the landscape in favour of the protection of some species and a traditional landscape character or let natural processes take its course? Positive and negative aspects of this development are summarized in the table 6.

Tab. 6 Positive and negative aspects of the new wilderness in cultural landscape

Positive aspects (+)	*Negative aspects (–)*
Compensation of intensively used arable lands	Some native species are endangered by the change
Space for natural processes, especially succession of natural communities	Possible decrease in ecosystem and species biodiversity
Increase in ecological stability of the landscape	Possible spread of invasive species
(Temporary?) increase in ecosystem and species biodiversity	Change in landscape character
Strengthening of biocorridor functions of alluvial plains and river valleys	Traditional regional rural landscape types are under threat and vanish
Origin of biocentres and refugia for many plant and animal species	Worse passability of the landscape (for the man only)
Increase in vegetation index with positive climatic consequences	Worse people's landscape perception (especially as concerns farmers, owners, stakeholders)
Water retention in the landscape	
No damages during floods	

The perception of "wilderness" areas from the perspective of the evaluation of the landscape character is always bound to be subjective and will undergo specific development. On the psychological-emotional level this means to overcome rooted archetypical aversions towards the wilderness that are viewed as an antithesis to the cultivated landscape. Igor Míchal (2002) points out four principal motives why we should enable the origination of the new wilderness and why we should protect it in the contemporary cultural landscape of Central Europe. These are namely the natural scientist (ecological), utilitarian functional, ethical and psychological-emotional motives.

Acknowledgements

The paper was prepared with support of the research plan of the Czech Ministry of Education No. MSM 0021620831 "Geographical systems and risk processes in the context of global changes and the European integration".

REFERENCES

ANTROP, M. (2008): Landscapes at risk: about change in the European landscapes. In: Dostál, P. (ed.) Evolution of geographical systems and risk processes in the global context. Charles University in Prague, Faculty of Science, pp. 57–79.

BUNCE, R. G. H. et al. (2005): Handbook for surveillance and monitoring of European habitats. Alterra report 1219, Wageningen.

FJELLSTAD, W. J., DRAMSTAD, W. E. (1999): Patterns of change in two contrasting Norwegian agricultural landscapes. Landscape and Urban Planning 45, pp. 177–191.

JONGMAN, R. H. G., BUNCE, R. G. H. (2000): Landscape classification, scales and biodiversity in Europe. In: Mander, Ü.,

Jongman, R. H. G. (Eds.) Consequences of Land Use Changes. Advances in Ecological Sciences 5. WIT Press, Ashurst Lodge, Ashurst, Southampton, pp. 11–38.

KUBEŠ, J. (1994): Bohemian agricultural landscape and villages, 1950 and 1990: land use, land cover and other characteristics. Ekológia/Ecology (Bratislava) 13, 2, pp. 189–198.

LIPSKÝ, Z. (1995): The changing face of the Czech rural landscape. *Landscape and Urban Planning* 31, 1, pp. 39–45.

LIPSKÝ, Z. (2000): Sledování změn v kulturní krajině. Investigation of changes in cultural landscapes. Czech Agricultural University, Prague, 71 pp.

LIPSKÝ, Z. (2005): Proměny krajiny. Park-Zahrada-Krajina 15, 4, pp. 2–6.

LIPSKÝ, Z. (2007): Nová divočina v kulturní krajině ? In: Herber, V. (Ed.) Fyzickogeografický sborník 4. Fyzická geografie – teorie a praxe. Masarykova univerzita, Brno, pp. 134–142.

LIPSKÝ, Z. (2009): Recent changes in landscape character as a result of social changes (new wilderness in cultural landscapes). In: Wilk, W. (Ed.) Global Changes: Their Regional and Local Aspects. University of Warsaw, Warsaw, pp. 223–234.

LIPSKÝ, Z. (2010): Present Changes in European Rural Landscapes. In: Anděl, J. et al. (Eds.) Landscape Modelling. Geographical Space, Transformation and Future Scenarios. Urban and Landscape Perspectives Vol. 8. Springer Dordrecht-Heidelberg-London-New York, pp. 13–27.

LIPSKÝ, Z., KUKLA, P. (2009): Mapování, typologie a vývoj nevyužitých ploch na území Kutné Hory. In: Dreslerová, J. (ed.) Venkovská krajina 2009, Veronica, Brno, pp. 140–146.

MÍCHAL, I. (2001): Fylogeneticky stabilizované aspekty vnímání krajiny. In: Tvář naší země. Krajina domova. 2. ročník konference. Svazek 1 – Krajina jako přírodní prostor. Studio JB, Praha, pp. 16–21.

MÍCHAL, I. (2002): Divočina jako kulturní objekt. In: Tvář naší země. Krajina domova. 2. ročník konference. Svazek 5 – Ochrana krajiny. Studio JB, Praha, pp. 25–30.

RAES, C. (2008): Landscape: Linking Rural Development and Agriculture. Newsleter Landscape Europe, Issue 11 – July 2008, p. 5.

Zdeněk Lipský, Pavel Kukla
Charles University in Prague, Faculty of Science
Department of Physical Geography and Geoecology
Albertov 6
128 43 Prague
Czech Republic
E-mail: lipsky@natur.cuni.cz, kukla.pavel@centrum.cz

RÉSUMÉ

Mapování a typologie nevyužitých ploch na území města Kutná Hora

V administrativním obvodu města Kutná Hora, který zahrnuje 7 katastrálních území o celkové ploše 3318 ha, byly zmapovány všechny plochy, které více než 2 roky leží ladem a nejsou obhospodařované. V práci je provedena jednoduchá typologie mapovaných ploch podle jejich vzniku, stáří a charakteru současných společenstev.

Mapování, klasifikace a následná kvantifikace potvrdily relativně vysoký podíl a značnou rozmanitost nevyužívaných ploch v příměstské krajině. V mapovaném území bylo zjištěno celkem 566,6 ha nevyužívaných ploch, tj. více než 17 % z jeho celkové rozlohy (tab. 3). Rozdíly mezi jednotlivými katastrálními územími jsou způsobeny jejich odlišným reliéfem, historickým vývojem a současným způsobem využívání krajiny. Menší podíl nevyužitých ploch je v zemědělských katastrech Neškaredice, Perštejnec a Poličany, zřetelně vyšší je v typicky příměstských katastrech, z nichž Kaňk a Sedlec byly nejvíce poznamenány hornickou činností. Opuštěné plochy vznikaly ve všech 3 vyčleněných časových obdobích: před rokem 1990, 1990–2000 i po roce 2000. Opět se odlišují zemědělské katastry Neškaredice, Perštejnec a Poličany, v nichž většina opuštěných ploch vznikla již před rokem 1990 z důvodu jejich nevhodnosti pro socialistickou zemědělskou velkovýrobu. Vysoký nárůst nevyužívaných ploch na katastrech Kutná Hora a Sedlec v období 1990–2000 souvisí s rozpadem státního statku, opuštěním části sadů a rybízových plantáží i s restitucemi zemědělské půdy vlastníkům, kteří nemají zájem na ní hospodařit. Podle geneze převládají postagrární opuštěné plochy, které dohromady tvoří přes 63 % nevyužívaných ploch.

Nevyužívané plochy se v krajině zatím stále rozšiřují a zaujímají významnou část sledovaného území. Nacházejí se především na periférii města a tvoří přechod od městské k venkovské krajině. Některé nevyužívané plochy směřují svým vývojem k zapojeným lesním porostům, jiné si po desítky let uchovávají lesostepní charakter. Tyto plochy jsou nejcennější z botanického hlediska, vyskytují se na nich některé chráněné stepní druhy rostlin. Mají důležité ekologické, ale také sociální funkce. Jejich mapování a dokumentace může být zajímavým podkladem pro ochranu přírody a krajiny, územní a krajinné plánování.