Aspects of rural landscape planning related to abandoned places and objects

Madara Markova

Latvia University of Life Sciences and Technologies, Latvia

Abstract. The study gives insight into the definition of abandoned places and objects in rural landscape planning. The goal of the study is to identify the essential aspects of rural landscape planning, that are related to abandoned places and objects, to use these findings from the literature review in further research already defining abandoned places and objects and giving guidelines for these kinds of places and object inclusion in planning documents. Rural landscape planning is considered to be the beginning of the development of planning, but planning issues have moved these days in the direction of metropolitan areas. There are still relevant initial planning goals in rural landscape planning - the creation of a quality living environment and job creation. Nowadays the importance of the landscape planning approach at the local level is emphasized. Rural landscape development and change processes are closely linked to the Common Agricultural Policy. Abandoned place/object in the context of planning can be considered as one that is not used for one year or more according to the defined function, or a place/object as abandoned, defined in human perception.

Keywords: rural landscape, landscape planning, planning aspects

Introduction

The number of people living in rural areas is expected to decline in the closest years, but those who still live in rural areas, and in the developed countries their number is increasing [24] need a good quality of life. Life quality in the countryside is influenced by many things, also different abandoned objects and places. Aspects of rural landscape planning can be seen in close connection with planning trends in general, the development of landscape planning, as well as the way a vision of landscape covered by science and planning has developed. Four sections have historically developed in the planning process: spatial; political; social and economic. Spatial planning in particular is linked to sustainable planning because it is linked to the restrictive, defining context of the area [2]. Geography is what has provided an opportunity to perform spatial planning and has changed planning in general at the beginning of the 20th century [46]. Planning is closely linked to research. In research of rural landscape, which was launched by geographers at the end of the 19th century, they took either a structural, functional, or archaeological approach. The structural approach includes each type of rural landscape and its historical development. The functional approach is focused on how each rural landscape is organized to combine plant and cattle farming. Meanwhile, the archaeological approach explores the existent features of the landscape that have formed earlier and reflect the previously prevailing functional conditions in the landscape [16]. Various landscape studies reflect the fact that the landscape has been created in an organized form and that studies also focus on the different principles of landscape building and organizing, development, affecting factors. As materials for research are used planning policy documents and mainly research papers, which reveal abandoned place and object relations to the rural landscape and specifics of rural landscape planning. Research is based on a literature review also covering some of the terms defined, in research was applied bibliographic sources, scientific publications, and electronic resources summary and analysis method.

Rural landscape function change

Landscape issues must be integrated into agricultural policy in the Member States of the European Union, this requires professionals trained in holistic thinking [26]. The emergence of potential new functions for rural landscapes (Fig. 1) is essential to understand the challenges and results of planning future rural landscapes. Nowadays, there are highlighted several functions in the rural landscape that are currently not exactly predictable in terms of future development. Highlighting the existing functions at the development stage is essential in creating the future vision of the specific area, development scenarios. The new functions that these days are highlighted in the European context are defined under such headings as “playground”, “landfill”, “after carbon landscape”, “resource sink”, “cultural heritage storage”, “food basket”, “ecosystem service provider” and “social environment” [22].
In 2017 ICOMOS (International Council on Monuments and Sites) and IFLA (International Federation of Landscape Architects) have jointly formulated principles related to the rural landscape as an essential part of human heritage. It is important to note the importance of traditional farming management, which is assessed at the international level since territories with a symbolic value of traditional farming management play an important role in the context of cultural landscapes and global heritage [29].

The Common Agricultural Policy, which started in 1962 at the European level, is essential for the development of the rural landscape. One of the five tasks of the Common Agricultural Policy is to preserve the rural nature and landscape of the European Union. In the context of this policy, it is stressed that farmers in particular are essential to the preservation of the landscape. Various initiatives at the European level are essential in the planning of rural landscapes in the context of spatial planning policy. Three major European initiatives affect spatial development planning: cohesion policy, rural development policy, and transport policy. The key initiatives of rural development policy are EAFRD (European Agricultural Fund for Rural Development) and LEADER. The European Investment Structural Funds play an important role in these initiatives. EAFRD Regulation No. 1698/2005 supports the development of local development strategies and plans, including urban-rural links, as well as supporting investment for the creation of basic infrastructure in rural areas. And one of the most important initiatives supported by the European Investment Structural Funds is the LEADER/SVV LEADER approach. LEADER is a local development method that is aimed to involve local activists in participation in the development of strategies, decision-making, distribution of development resources in rural areas. These days this method is widely used among the Member States of the European Union and more than half of the rural population is involved in the activities of this method. The second section of this method, SVVA, is a community-led local development and is applicable not to rural areas [17].

Factors affecting the formation of abandoned areas and objects in the rural landscape

Development processes of the rural landscape are influenced by global processes that reverberate across Europe through the prism of the European region. In each country and region, landscape changes proceed differently, but there are still common trends observed in paradigm changes. Cultural landscapes are the result of human and natural interaction. If we look at landscape changes in the context of human influence then they are defined as cultural landscapes. The concept of cultural landscape occurs in research by various scientists, both geographers and landscape scientists, architects and cultural historians, as well as it is defined in planning documents [6; 25; 27; 30; 47].

<table>
<thead>
<tr>
<th>Functions, which form in the rural landscape</th>
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<tbody>
<tr>
<td>Playground</td>
<td>Place of consumption for new second homeowners, tourists, food consumers</td>
</tr>
<tr>
<td>Landfill</td>
<td>Controversial unwanted land uses (e.g. waste, incinerators, prisons)</td>
</tr>
<tr>
<td>After carbon landscape</td>
<td>Site for the deployment of renewable energy (often contested) – wind farms, solar farms, biomass</td>
</tr>
<tr>
<td>Resource sink</td>
<td>Site for extracting resources, often with short term ‘boomtown’ effects and limited long term re-investment in rural futures</td>
</tr>
<tr>
<td>Cultural heritage storage</td>
<td>Site perception tied into rural 'authenticity' and nostalgia, cultural landscapes and the commodification of place</td>
</tr>
<tr>
<td>Food basket</td>
<td>Agriculture remains as a dominant land use and function of rural places</td>
</tr>
<tr>
<td>Ecosystem service provider</td>
<td>Site where ecosystems provide functions and services essential to human wellbeing, from recreation to flood alleviation or carbon storage</td>
</tr>
<tr>
<td>Social environment</td>
<td>Place, where people live and interact at the scale of everyday life, often characterised by strong place attachment</td>
</tr>
</tbody>
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Fig. 1. New functions created in the rural landscape [developed by the author by using Gallent, Scott 2017]
In the context of planning policy, the landscape has become important not only by implementing a landscape approach as a comprehensive vision of development but by strengthening the role of the landscape in the European Landscape Convention particularly. On defining the landscape as important for the existence and development of people the issue of landscape changes and their affecting factors raises [23].

Five major groups of influencers of landscape changes are distributed (Figure 2.):
- political/institutional (including agricultural and forest policy, spatial development policy, land tenure rights);
- economic (including structural changes in agriculture, prices of agricultural production, market changes);
- technological (including modernization of social and land management);
- cultural (including demography, attitudes, behavioral change);
- natural and spatial (including climate, topography, and spatial construction) [38].

Research of landscape formation includes a study of different processes. These days, one of the processes still widely affecting landscape changes is urbanization, whose impact continues to grow from the end of the 19th century [3; 4]. Dramatic changes in rural areas, countrysides, and the lifestyle of the rural population are currently taking place around the world, affecting cultural landscapes [42]. In the last century, urbanization processes and rural development policies have given rise to the polarisation of land usage, resulting in that the structure of populated areas has changed and population density has decreased, agriculture has activated in more productive and accessible areas, while distant peripheral areas were marginalized and abandoned [5; 32; 33; 42]. One of the processes often mentioned in the context of an abandoned landscape is a change in the population base. Going into the various studies, the information is not unequivocal. More and more people are moving to cities. In 2018, 55% of people worldwide lived in cities, and two-thirds of the population of the planet are already expected to live in cities in 2050 [41]. In Europe, 75% of the population lived in the cities in 2019 [48]. An important aspect is that the global population is growing rapidly in populated areas, but it only falls very marginally in rural areas – countryside, however, the number of people living in rural areas – the countryside is expected to decline in the coming years. In turn, another study shows that more than three billion people live in rural areas – countryside in the developed countries and their number is increasing and is expected to grow by 2028 [24].

The direction of landscape change expressed these days is homogenization when the landscape loses its individual character. The main processes affecting homogenization are economic development and migration [35]. Abandonment of the areas, land extension, urban expansion, and infrastructure development is a driving force of land changes and it is affected by the relevant policies of the European Union, although policies are not primarily designed to influence land management in principle. In the 21st century in Europe, there are
distributed two distinct periods for changes in the land cover. The first period, which has already started at the end of the 20th century and is defined from 1990 to 2006 – abandonment of lands or development of agricultural lands towards marginalization had been pronounced during this period. The second period 2006-2012 – this period is characterized by a slightly faster decline in agricultural lands compared to the previous period and there had been either observed the formation of abandoned areas. Abandonment of agricultural areas forms a close link with the disappearance of traditional farming [45; 49].

While abandonment is an aspect influencing landscape, its reasons may vary from one area to another. One of the most expressed reasons for the abandonment of the land is the expansion of agricultural lands, other reasons include conflicts created by different functions, the polarisation of activities, and, often, the linkages created by several factors [38]. The reasons for the abandonment of agricultural lands are divided into three types: ecological, socio-economic, and incorrect or unsuitable agricultural systems, including inappropriate management. Such factors of abandonment of agricultural lands as fertility, soil depth, erosion, climate, etc. are classified to the ecological type. Factors for the abandonment of socio-economic type are migration, industrialization, technology, age of farmers, accessibility (roads), urban proximity, etc. In turn, third-type factors (incorrect or unsuitable agricultural systems) are generally described as farming which leads to soil degradation, increased risks of flooding, too intense use [10].

A summary conducted in 2016, which analyzed 144 studies, shows that abandonment is the most important factor influencing landscape change (62 % of the cases studied) [38]. In Europe, landscape abandonment had been the most mentioned trend between 1990 and 2006 [31]. Landscape abandonment can have both positive and negative impacts on biodiversity, ecosystem services, and the human well-being of certain areas [28; 37; 38; 40]. Abandoned areas and objects lead to a loss of cultural and aesthetic values in the landscape, as well as a decline in the diversity of the landscape. Although agricultural lands are linked to continuous wide fields, their abandonment leads to the rapid spread of invasive species, thereby reducing the diversity of the landscape of specific areas at least during the initial period. Recovery of the natural ecological system is possible after a certain period of time [10]. Abandoned areas and buildings have a negative psychological and economic impact on the remaining population of the area. Around the village areas, the population perceives an abandoned landscape regretfully. Visitors of the area also perceive regretfully the loss of cultural values in the rural landscape, while at the same time seeing the positive in wilderness distribution [34]. The attitude of society towards abandoned agricultural lands is mostly negative and associated with non-farming, as well as concerns or doubts that landscape is not being exploited productively [43]. Abandonment of the land, particularly abandonment of well-used grazing areas, can lead to the disappearance of the special habitats typical for such areas. However, there are many ecosystem services provided by abandoned rural landscapes, particularly indirect and unused services, which are often overlooked in the policymaking process. Ecosystem services support functions may lay the grounds for some cultural services since some species benefiting from abandonment are associated with recreation in hunting and tourism [46].

The Food and Agriculture Organization of the United Nations assesses the abandonment by defining the positive and negative impacts. The negative impacts are:

- Environmental impact – land degradation, landscape change, a decline in biodiversity and genetic resources;
- Economic impact – infrastructure deterioration or disappearing (roads, meioration), a decline in land value;
- Social impact – society division, marginalization, negative migration.

In turn, the positive impacts created of abandoned areas are the only increase in naturalness:

- Environmental impact – increase in environmental and landscape values through the return of areas to their natural condition. The development of a positive scenario requires a variety of contributing factors and it is not easily achievable if the area plays a major social and cultural role.

It is mentioned indeed on landscape changes that they are likely to develop negatively and positively over a larger period of time [21; 20]. Types of factors for farming abandonment can be divided into geographic, demographic, agro-ecological, socio-economic, policies of different-level, and historical (Table 1) [39].

Abandoned areas and objects are not only the result of any process, they form feedback and have an impact on the future development of a particular area. Abandoned farms in Europe have an impact on several land usage types. Areas considered as risk areas in England, France, Germany, Denmark, Italy, Lithuania, and the Czech Republic are lawns. In turn, mountain areas in some countries are risk zones [39]. The effects of farming (single houses) abandoning are wider than those of agricultural land abandonment factors, which is due to close links with the population of a particular area.
### TABLE 1
Reasons and types of farming abandonment [Pointereau et al. 2008]

<table>
<thead>
<tr>
<th>Type of factor</th>
<th>Reasons of farming abandonment</th>
</tr>
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<tbody>
<tr>
<td>Geographic</td>
<td>• Steep embankment</td>
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<td></td>
<td>• Distance of the farm from the field</td>
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<td></td>
<td>• Low accessibility</td>
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<td></td>
<td>• Small size of land parcel</td>
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<tr>
<td>Demographic</td>
<td>• Reduction in the number of workers</td>
</tr>
<tr>
<td></td>
<td>• Reduction in professional farmings</td>
</tr>
<tr>
<td></td>
<td>• Population change (immigration, emigration)</td>
</tr>
<tr>
<td>Agro-ecological</td>
<td>• Barren soil</td>
</tr>
<tr>
<td></td>
<td>• Land is used as Alpine pastures</td>
</tr>
<tr>
<td></td>
<td>• Small land parcels</td>
</tr>
<tr>
<td>Socio-economic</td>
<td>• High cultivation costs and low harvest potential</td>
</tr>
<tr>
<td></td>
<td>• Decrease in livestock numbers</td>
</tr>
<tr>
<td></td>
<td>• Low land price</td>
</tr>
<tr>
<td></td>
<td>• Farmers who are approaching the retirement age without followers (descendants)</td>
</tr>
<tr>
<td></td>
<td>• Complex inheritance due to generational disagreements</td>
</tr>
<tr>
<td></td>
<td>• Improved succession due to intergenerational discord</td>
</tr>
<tr>
<td></td>
<td>• Very small farms</td>
</tr>
<tr>
<td>National and European Union policies</td>
<td>• New sanitary requirements from the Common Agricultural Policy in Eastern European countries since 2004</td>
</tr>
<tr>
<td>Historical</td>
<td>• For Eastern European countries – transition to a free-market economy with crushing of the agricultural economy between 1990 and 2004</td>
</tr>
</tbody>
</table>

### Integration of abandoned places and objects in planning

The concept of abandonment is not precisely territorially definable, but is more related to perception and is defined through comparison of areas. Abandonment occurs when, compared to the other areas, there are fewer people, fewer human-created elements, less visible human activity in a separate area. The perception of places and thus abandonment is subjective and deeply linked to how the place is imagined. Abandonment is not a lack of physical content (real or imagined) but a condition that assigns a value to the space. When determining the conditions of the place and comparing the indicators, the abandonment of the place becomes an objective value. The area must be defined as a social formation that is constantly transforming [15].

The concept of abandonment cannot be defined very clearly, unambiguously. The definitions of “abandonment” are different, having in common the efforts to define the various reasons for abandoning places and objects, as well as to define the time dimension for these processes. In the time dimension, the deadline is surprisingly starting at 12 months, if the place or object is unfunctional and not managed for a year, it must be defined as abandoned. The year is considered to be the reference point for defining that a particular area has been abandoned, remaining without function/usage [1; 2; 12]. The phenomenon of an abandoned place makes an interesting connection to the physical characteristics of the place. Because there is often a place by itself – there are roads, there are buildings, but there are no people. The form is not filled with function and loses its meaning [18]. Land abandonment, in turn, is a process in which people no longer have control over land, it is transferred to nature and, depending on climatic and ecological conditions, land may be considered to be abandoned after a certain time [21].

If we consider the landscape as variable but constantly existing, then abandonment is the variable value that can be present in a landscape (it’s part or its elements) at a certain point in time. What has now been abandoned has been formed as a result of different process interactions and can be used again in the future or entirely disappear. Considering that the elements to be included in the definition of an abandoned landscape are function, human activity, and social aspect, it is necessary to create a link for abandoned places and objects and the concepts of the cultural landscape. Art scientist Spārītis considers the successful definition of the cultural landscape as “due to biotic and abiotic factors human-made landscape, reflecting the degree of material development with changes raised of social and cultural evolution” [44]. The cultural landscape is based on the geological, geographical environment, flora and fauna, while it is transformed by social factors, thus nature and human interaction.
There is observed a decrease in human interaction or a lack of presence in abandoned landscapes. The presence of people in the landscape is usually divided into two large groups, the local population, and visitors of the area. Four types of areas are divided on assessing the number of population and visitors:

- a large number of population and visitors to the area – such area is defined as diverse and with direction towards sustainability by the interaction of internal and external desires;
- a large number of populations, but a small number of visitors to the area – such area is considered to be a potential conflict area, which is often defined as the living environment of a closed society;
- a small number of populations, but a large number of visitors to the area – it is also seen as a potential conflict area where is the tendency to polarize imposed external desires;
- a small number of population and visitors to the area – development towards recession, typical to areas abandoned for a variety of reasons [44].

In the context of this approach, an abandoned landscape is considered to be an area in which both the population and visitors are reduced [44]. Abandonment in the rural landscape is characterized by the unavailability of infrastructure and services [19]. Abandoned agricultural lands are subject to a wider timescale so that they could be defined as abandoned. Based on the definition provided by the European Environment Policy Institute and its extension, three sections are formed: wholly abandoned agricultural land is agricultural land that has not been processed or cultivated for at least for two years; partly abandoned agricultural land is the one which has not been managed for one year; abandoned agricultural land which is in the transition period is the return of agricultural land on forest land (Table 2) [50].

The definition of partly abandoned places and objects coincide with the clarification of degraded areas, but these concepts are not considered to be synonyms [1; 2; 12]. Abandoned places and objects may also be degraded, but there should not be a sign of equality between them. On summarizing many different visions and definitions, Sandra Alker and her colleagues provide a summary of the criteria for degraded areas. Degraded areas are land or buildings which are not currently in use, but have previously been developed and are located in both the countryside and urban areas. Degraded areas maybe, but not necessarily are – partly populated/used areas, legally contaminated areas, green belts, soil-contaminated areas, as well as empty and abandoned areas [2].

The perception of planning processes by concerned parties involved in planning is often more important than reality [7]. Human vision is selective and, which is not even less important – the human brain interprets what has been seen, so the visual perception of the landscape is not objective. People give their value to what they have seen, evaluating through a subjective prism. People value the landscape differently and see different shapes and elements in it. Controversial perception also means that what seems beautiful to one person might seem ugly for another [9]. People mostly have an emotional view of the landscape, a desire to highlight natural aesthetic and human-made values [44]. Landscapes that are considered to be abandoned, and do not have content are similarly important for social places and landscape building as those which are celebrated, restated and mentioned.

Architectural and urban planning industries are mainly working on filling empty places, transforming the uninhabited area into a populated, unproductive area to functional, empty area in built-up. These days, the positive vision of the concept of emptiness, as it has not been before, appears.
The new vision includes a view on emptiness or abandoned, places as freedom and opportunity. The positivity often stems from the presence of a temporary factor [39]. In the social aspect abandoned landscapes are perceived negatively [8; 11; 42]. Several studies show that abandoned agricultural lands and farms are perceived negatively from both the local population and the tourist perspectives [10]. Issues of planning abandoned places and objects are important because they have negative psychological and economic impacts. Residents perceive regretfully abandoned landscapes that are located around village areas. Visitors of the area also perceive regretfully the loss of cultural values in the rural landscape, while at the same time seeing the positive in wilderness distribution [34]. Marginal areas not only lose attractiveness in people’s eyes but also contribute to the crisis of place identity in the rural population [36].

Abandoned objects, buildings in the landscape can be perceived differently. Historical elements such as ruins (in the period of Renaissance or neoclassicism) are associated with space creation, searching for proportions, and have often been recreated with modern materials. There are differently perceived industrial buildings and areas that are evidence of shortcomings or failures, fate, and resource exhaustion. It is possible that in different cultures concepts are not perceived in so different ways, but it should be noted, in principle, that in the context of history we are generally talking about ruins, whereas in the modern context (industrial heritage) we are talking about abandonment [13]. Industrial heritage is diverse, it can strengthen the recognizability and identity of the place, but it can also be as dangerous, abandoned, and contaminated areas [12].

The rural landscape in general, from the point of view of stereotypical place perception, includes emptiness and abandonment in such a way that it is free from disturbing aspects, such as noise and dense infrastructure. In 1995 Rural Defence Council of the United Kingdom / England offered, as an approach to the characterization of rural areas – countryside, indicators such as the level of silence, the level of sky darkness at night, the sense of isolation and naturality, the number of abandoned lands and buildings, the sense of the community, the level of available services, the number of available skills, the attractiveness of the landscape, the frequency and accessibility of public transport. These and other indicators may be applied to the identification of rural areas, as well as to point out the existing idea of the countrysides [14].

Conclusion

Although there are regional differences, there are similar changes in rural landscape planning in Europe as a whole. Further research should develop much deeper detail into regional rural landscape development processes, including – interactions, shapes, processes. Planning in landscape-scale nowadays can be seen as the most sustainable way of planning. The initial planning goals - the creation of a quality living environment and job creation - are still relevant in rural landscape planning. Although the landscape planning approach started as part of regional and strategic planning, today the importance of the landscape planning approach at the local level is emphasized, including spatial interactions, objects, processes that can be both visible and invisible. Rural landscape development and change processes for the last decades in Europe are closely linked to the Common Agricultural Policy. After researching the scientific literature, the definition to be put forward - an abandoned place/object in the context of planning, can be considered as one year or more not used according to the defined function, or a place/object as abandoned, defined in human perception. When including the concept of abandonment, planning must consider its variability over time and the perception of the population as well as tourists. Experience to date in research covers both the use of digital technologies and the inclusion of surveys. The use of digital technologies is necessary to make detection and survey more efficient, while surveys are needed to study the perception of the population, as well as to include the opinion of the population in the planning processes. For abandoned sites and objects, the issue of perception is important in their planning and management, as well as the vision that such sites should be assessed not only negatively but also positively. Although abandonment has both negative and positive effects, it has to be resolved mainly because, in the view of the local population, these places and objects are to be assessed negatively.

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