

**LANDSCAPE PREFERENCES
OF LOCAL PEOPLE: CONSIDERATIONS
FOR LANDSCAPE PLANNING
IN RURAL AREAS OF ESTONIA**

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LIST OF PUBLICATIONS

The thesis is based on the following papers, which are included as appendices at the end of the thesis and are referred to in the text by their Roman numerals.

- I. Palang, H., **Alumäe, H.**, Mander, Ü. 2000. Holistic Aspects in Landscape Development: a scenario approach. *Landscape and Urban Planning* 50, 85–94.
- II. Palang, H., **Alumäe, H.**, Printsman, A., Sepp, K. 2004. Landscape values and context in planning: an Estonian model. In: Brandt, J., Vejre, H. (Eds.), *Multifunctional landscapes – volume 1: theory, values and history*. Wessex Institute of Technology Press, Southampton, pp. 219–233.
- III. **Alumäe, H.**, Printsman, A., Palang, H. 2003. Cultural and Historical Values in Landscape Planning: Locals' Perceptions. In: Palang, H., Fry, G. (Eds.) *Landscape Interfaces: Cultural heritage in changing landscapes*. Kluwer, pp. 125–146.
- IV. Palang, H., Printsman, A., **Alumäe, H.**, Kaur, E., Oja, T., Prede, M., Pungas, P., Reimann, M., Sooväli, H. 2003. Local people as shapers of sustainability of rural landscapes. In: Tiezzi, E., Brebbia, C.A., Usó, J.L. (Eds.), *Ecosystems and sustainable development, Vol. 2 (Advances in Ecological Sciences, 19)*, WIT Press, pp. 873–882.
- V. **Alumäe, H.**, Palang, H. 2006. Revisiting the future: employing scenario research in discussing landscape changes. Submitted to *Landscape and Urban Planning* in December, 2005.

Author's contribution

- I The author is fully responsible for the data collection and partly responsible for the analysis, and participated in writing the manuscript.
- II The author was involved in data collection and analysis, and participated in writing the manuscript.
- III The author participated in data collection and analysis, and is fully responsible for designing and writing the manuscript.
- IV The author was involved in case studies and analysis, and participated in writing the manuscript.
- V The study was designed and initiated by the author. All data collection and analysis, as well as the preparation of the manuscript were done by the author.

1. INTRODUCTION

The work behind this dissertation began about eight years ago when planning my graduate research project. During these past eight years I have been investigating the landscape preferences of local people in the scope of different research as well as applied projects. The main sphere of activity has involved the elaboration of methods to delimit valuable landscapes on county level, and the practical applications of the method in different Estonian counties. The dissertation at hand is an organic sequel to my BSc thesis “Using scenarios in predicting landscape changes” (1999) and my MSc thesis “Landscape preferences of local people” (2001).

Geographically, the research behind this thesis focuses mostly on typical Estonian rural landscapes. Unlike in many other European countries, most of the studied rural areas are not posed to active in-migration or urbanization; furthermore, one of the main social problems of the regions is depopulation – both through aging and emigration, leading to land abandonment in large areas. At the same time, the functions of rural landscape have changed significantly during the past 15 years since Estonia regained independence.

Traditionally, agriculture has been the most important factor shaping Estonian landscapes (Palang et al., 2000). With major socio-economic changes in the 1990ies, agriculture has lost its predominant place and is being replaced by other activities, such as rural tourism, leisure farming, rural housing, forestry etc. The same trends have been witnessed elsewhere in Europe (e.g. Claval, 2004). In Estonia, mostly because of lack of finances, open market policy and imports of agricultural production, extensive agricultural lands have been permanently or temporarily abandoned and natural succession has taken possession over the land (Sooväli et al., 2003; Kaur et al., 2004), leading to the domination of fallow lands in many rural areas. According to Peterson and Aunap (1998), the decrease in arable land use has been the most significant in the marginal districts of Estonia, while the decrease has been the smallest in the central districts of upper Estonia and in Lääne County, West-Estonia. The above-mentioned processes have caused an identity crises and dissatisfaction among the rural residents. The same processes have been identified also elsewhere in Europe, e.g. in Portugal (Pinto-Correia, 2000) and other Mediterranean areas. Ideally, that is where landscape planning and management could help to improve the situation at least a little bit.

Therefore, the topics discussed in the thesis have emerged from the necessity and interest to determine the landscape preferences of local people in rural areas in order to ensure fruitful and acceptable landscape planning practices as well as to involve them in discussions regarding the future of their landscapes. All contemporary planning documents (e.g. Estonian Planning Act, RT, 2002) stress the importance of involving the local residents in planning exercises. The role of public participation must be enhanced and fostered, as only spatial planning *for*

the people can produce viable results (CEMAT, 2003; Luz, 2000; Scott, 2002; Komulainen, 1999). The papers presented in this thesis offer some reflections about participatory approaches based on experiences with involving local people in planning process regarding the future of landscapes in a number of Estonian counties and smaller localities.

The focus and objectives of this dissertation initiate from the multitude of challenges that contemporary landscape ecology and landscape planning (and regional/spatial planning) face, as well as from landscapes themselves. There are a number of questions to be asked and answered regarding the methods and aims of (landscape) planning. What are the values and functions in landscape that we should consider as essential? Who are we planning for? What kind of landscapes do we want and whose preferences and opinions should we take into consideration? How can we enforce the planning in such a way that it actually makes a difference in the living landscape? These questions address the applied aspect of planning, but there are also more theoretical issues to be tackled. What do the local people think and feel about landscapes and landscape changes? How can landscape planning affect these perceptions and *vice versa*? Are there important regional or local differences in landscape preferences and landscape values, and if and how should these be considered in the planning process?

Proceeding from the issues presented above, the main objectives of this dissertation are:

- 1) to study the landscape preferences of local residents in Estonian rural regions;
- 2) to explore how communities value and interpret their landscapes;
- 3) to explore the role of public participation in landscape planning and landscape research;
- 4) to discuss how local people and their understanding of landscape can influence the rural landscape, its continuance and the inherent heritage.

The Papers included in the thesis are presented in the logical order of completion. Paper I summarizes the main results of my Bachelor's thesis completed in 1999. In October 1999, the work on developing methods for delimiting valuable landscapes on county level, initiated by the Planning Department of the Estonian Ministry for Environment, began (KKM, 2001). The first paper (Paper II) on this topic centred on methodological issues of delimiting valuable landscapes. The following research presented in Paper III presents a more elaborate discussion on issues related to delimiting valuable landscapes and brings forth important results from the experience of four counties. Paper IV involves more authors and sums up all the experience and main results that we as a group of landscape researchers/experts had in delimiting valuable landscapes in several Estonian counties during 2000–2004. Finally, Paper V presents an independent study made in 2005, a follow-up to my BSc thesis.

The first paper (I) presents a case study performed in Obinitsa, a rural area in South-East Estonia to project the possible landscape changes using the scenario visualization technique. Four scenarios aiming to visualize future developments in the area, and the “current situation” were illustrated and presented to a random sample of local residents to be assessed and ranked according to preference. The results indicate the landscape preferences and fears regarding landscape changes as perceived by the local population. It became clear that people showed apparent support for landscapes carrying signs of life.

The second paper (II) deals mostly with theoretical as well as applied problems and issues of defining valuable landscapes on a county planning level. From theoretical aspect, the planning exercise had to solve two important questions. First, the issue of defining landscape values to be used in the planning process. And second, to define and group the actors in the landscape, and open these actors up to discuss their perceptions and valuations of landscapes. The paper focuses on the choice of values, actors and methods used in the planning projects; and analyzes the regional outcomes of three counties based on the data collected from the local residents. Resting upon the experience from the planning exercise, we argue that all landscapes have multiple values, as well as functions for all actors in the arena, and that the main task of planning is to find a balance between all values, functions and actors.

The third paper (III) deals with cultural and historical values in landscape planning, stressing the role of cultural heritage for local people. The data was drawn from projects carried out to delimit valuable landscapes in four counties of Estonia. The paper analyses the perception of cultural heritage by local residents, and discusses the needs and challenges of landscape preservation. Further, we elaborate on differences of landscape perceptions and preferences of experts and lay people. The aspect of time – the age of historical-cultural elements – is taken into consideration as well. The geographical differences were not, however, well manifested, and main differences in perceptions appeared to be rather site-specific.

The fourth paper (IV) utilizes some of the results from the previous papers (II and III), with more emphasis on local residents as the main actors in the actual landscape. The paper summarizes the main landscape preferences and landscape-associated value assessments of local people in seven Estonian counties. In addition, we have explored to notion of sense of place, as identity value, and the recognition of it within the planning process is the key in restoring the somewhat lost link between the people and their landscapes. The article demonstrates which kind of places the local population values and brings forward some regional peculiarities. The paper concludes that recognizing the local identities and knowing the histories helps local residents to appreciate their places and maintain the landscape they value, thus having an enormous potential for sustaining rural landscapes.

Finally, the fifth paper (V) loops back to the first article. It displays a recurrence-study in the Obinitsa area, employing the same approach – scenario

visualization technique. This study had two main objectives. First, it aimed at evaluating the actual changes in landscape as compared on the background of the scenarios. Second, we were interested in finding out whether the landscape preferences of the local people had changed significantly. Therefore, the illustrated scenarios were re-presented to the public and in-depth interviews were made. The study shows that the actual changes in landscape include elements from more than one scenario, and that local residents' preferences had not changed much, indicating strong preference towards living landscapes.

2. THEORETICAL FRAMEWORK

2.1. Important concepts

In the chapter below, the most important concepts used in this dissertation are explained and discussed. As Jones (2003) has noted, geographers seem to be especially attracted to complex and “chaotic” concepts such as ‘landscape’, ‘cultural landscape’, ‘region and ‘place’, to mention those important in the context of the thesis. These are all concepts that are very widely used and much debated in landscape research and rhetoric, leading to endless discussions. This dissertation does not aim at further elaboration of these issues; however, for understanding the background and basis of the thesis, certain concepts have to be defined and clarified. Also, the discussion in the following subchapters creates a background for the scope of the study.

2.1.1. Landscape

Landscape as a term is a particularly complicated and diversely used concept. It forms a central concept in geography, and has forced its way out of the boundaries of classical physical geography, becoming a major research object also for cultural geography, as well as social science disciplines and semiotics, for instance. Because of this multiplicity of usage of the concept, every study dealing with landscape should explain how the term is used in this very context (Palang 1998; Jones 2003).

Cultural geographers, with whom landscape ecologists share a common interest in the essence, past, present and future of landscapes, define landscape mostly from the human perspective, and have been doing so for decades, starting from Sauer in 1925, to Cosgrove (1998), Jones (2003) etc. Their interest lies mostly within the cultural landscape. For example, for Cosgrove (1984) landscape is an ideological concept by which people see themselves and their world through their imagined relationship with the land and nature. Landscape is so much more than just a view to see and observe; it is a constant process through which people's identities are both created and contested (Cosgrove, 1984; Mitchell, 1994).

The role of culture in perceiving and shaping landscapes is increasingly stressed by numerous researchers of other disciplines as well, including landscape ecology, where increased attention to the human perception of landscape, and definitions describing landscapes from the human aspect are rather late phenomena. For Palmer (2004), for instance, it seems only reasonable that in addition to investigating landscape patterns, a behavioural or perceptual response component should be included in landscape ecological research. It has been understood that it is the hidden hand of culture that makes landscapes

significant to us, the humans. Even more, as Crang (1998) suggests, landscapes can be seen as both a product of cultures and as reproducing them through time.

In landscape discussions, culture and cultural heritage have been played a role of changing importance. In landscape ecology and the related fields, the concern for landscapes as a cultural heritage was re-raised to the agenda in the turn of the last century (Antrop, 2005). The European Landscape Convention (Council of Europe, 2000) is perhaps the best example of such concern. In the framework of this dissertation, I have leaned on European Landscape Convention's definition of landscape as "an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors" (Council of Europe, 2000). The definition stresses the importance of perception by humans, as well as actions and interactions taking place in the landscape, and fits therefore well into the context of the current research, with the main focus on preferences and perception of landscapes, and actions taken to control or steer changes.

A serious conflict and point of consideration in landscape management is related to ownership issues. Land is mostly privately owned, while landscape is considered a common heritage. Moreover, land ownership is determined by well-defined borders, while landscape transgresses these boundaries (Antrop, 1997). So, land owners provide landscapes that meet the needs and functions of a wider public. Societies often identify themselves through the natural and cultural heritage on their territory, even if the land is owned by private owners. Therefore, landscape is simultaneously a private as well as a public good, since they are consumed by landowners and visitors, insiders and outsiders (Linehan and Gross, 1998).

The current research focuses on rural landscapes, which is understood as countryside involving human activities: agricultural practices, settlement, infrastructure and societies along with all natural elements within it. According to Claval (2004), rural landscapes have emerged mostly in two ways: 1) as a result of planning actions and 2) as a result of independent choices of landowners and farmers, i.e. the inbuilt logic of farming system. Claval continues to claim that geographers have predominantly focused on the logic of crop rotation and farming systems as the main shapers of rural landscapes. However, it is interesting to note, especially in the context of this thesis, the observation made by Olwig (2002) as referred by Claval (2004): for local populations, landscapes were not "only based on the visual perception of a special combination of fields, hedges, walls, farms, villages etc. They were the embodiment of basic social, cultural and political systems".

'Rurality' itself is a concept that for decades has induced never-ending debates in the field of rural studies (Rye, 2006), much like 'landscape' in landscape studies. Most of these interpretations have been of very abstract character. According to Rye (2006), the rural is not described and defined so much by the concrete, objective features of rural areas (e.g., landscape, settlement and occupational structures), but instead, by the abstract characteristics of social life

that evolve in rural areas, such as traditionalism, dense social structures, a feeling of community, etc. Also, rural is very often conceived as being more 'natural' than the urban (Halfacree, 1993).

Up until quite recently, the rural landscapes of Estonia, as well as most of Europe, were seen as mainly agricultural landscapes. Indeed, for many centuries, agriculture made an essential contribution to the development of rural landscapes. Agriculture has shaped the countryside of most parts of Europe and other regions of the earth (Lütz and Bastian, 2002; Smithers et al., 2006). At the same time, (agri)cultural landscapes were opposed to so-called natural landscapes in most earlier as well as many contemporary studies and disciplines focusing on landscape issues. This contradistinction has been questioned by many landscape researchers (e.g. Ingold, 2000; Palang et al., 2000; Alumäe et al., 2003), because, as O'Rourke (2005: 69) rightfully notes, landscapes "cannot be meaningfully studied from an exclusively 'naturalist' or 'culturalist' perspective." Instead, culture and nature should be seen as different layers of the landscape, complementing and not excluding one another. The same approach is used in the context of this dissertation.

2.1.2. Landscape values and evaluation

Landscapes can be evaluated and categorized in a number of ways. The choice of indicators used in landscape assessment in various countries, initiatives, projects and policies is enormous. Landscape evaluation techniques can very broadly be classified into two groups, or paradigms. The first approach is the "expert-based" approach following the "objective" paradigm, which uses the biophysical features of the landscape as parameters, which are assumed to be indicators of landscape quality (Daniel, 2001). Therefore, this approach is mostly natural science and model-based. According to that approach, the landscape (visual) quality is inherent to landscape properties (de la Fuente de Val et al., 2006), while approaches belonging to the second group, the "subjective" paradigm, have more focus on human factors, especially perception of landscape (landscape quality is "in the eye of the beholder"). In this "perception-based" approach (Daniel, 2001), landscape visual aesthetic quality is considered to be a product of the visible features of the landscape interacting with the personal cultural background of the observer.

As pointed out by Wascher (2005), the object-based indicators in "expert-based approach", like those based on statistical data or on land use/land cover trends are easier to measure and comprehend, while approaches based on human perception of landscapes and their qualities require much more methodological development in order to be used in landscape assessment. Ideally, landscape planning should take advantage of both approaches, and combine them to get scientifically and socially sound results.

In order to be able to define valuable landscapes, the values attributable to landscapes have to be defined first. Landscape values are probably the most discussed items in landscape research. Landscapes values are manifold and the definition and categorization of these depends on each individual study. Just like the concept of 'landscape' can have different meanings in different contexts, also the values we attribute to landscapes often have to be redefined and specified proceeding from the context and objectives of the study. The most common value categories attributed to landscapes are ecological, economical and cultural/aesthetical/social values. In the studies behind this dissertation, the latter category was the one that the research mostly focused on. No attempt has been made to analyze or discuss the intrinsic natural values of landscapes; rather, the values that people attribute to landscapes are discussed.

It has to be stressed that the perception of values assigned to landscapes varies considerably between people and groups of people according to their background and interests. Furthermore, the perception of values also changes in time, as do the landscapes themselves. According to Zube et al., 1982, landscape perception is the function of the interaction of humans and the landscape, involving the personal (subjective) dimension of perception as well as external landscape properties. Landscape perception is foremost influenced by previous knowledge and experience and socio-cultural conditions. As each individual possesses a particular set of social and cultural influences, the act of perception is always unique (Zube et al., 1982).

Although I myself participated as an expert or researcher in the studies involved in the thesis, the research in this dissertation concentrates on 'perception'-driven approach (see Wascher, 2005: 88; Daniel, 2001) in landscape research. Bearing in mind that the biophysical features of landscape form the core and basis of every landscape, this study takes a look at the human-perceptual aspect of landscape.

2.1.3. Landscape change

Change is perhaps the most important characteristic of landscape, especially to landscape researchers and planners. At the same time, change is the only thing that is permanent (Palang et al., 2004b). In the context of change, landscape is most commonly compared to a palimpsest, the medieval writing block where an original inscription would be erased and another written over it, again and again (Crang, 1998; Marcucci 2000). Likewise, culture inscribes itself on the landscape as the sum of erasures and accretions, through the individual actions of humans. Therefore, landscape can be seen as a historical document, an important source of forgotten knowledge (Austad, 2000), which can be read. Once destroyed, the "landscape document" can never be replaced, and this should be borne in mind when planning change.

The focus of this study is aimed mostly at the present and future of landscapes. However, past should not be forgotten, since the landscapes of today and tomorrow are products of a combination of natural attributes and the historical heritage, as pointed out by Emmelin (1996). In fact, all future landscapes are to some degree immanent in present (Fig. 1.). The development of future landscapes is dependent on a wide array of factors, and it is largely the role of planners to foresee and apprehend these factors and their individual influence in each specific location. That means that the planner and the decision-makers have to “go local”. The local level can be very distinctive and it may be difficult to understand the mechanisms behind the local landscape change at first. Every individual decision-maker interprets the national or regional policies according to his or her own understanding and values, which are, in turn, a reaction or accommodation to outer processes, supposedly acting in a way that he or she considers to be right. On the local level it is the local driving factors that matter the most, like local biophysical and ecological conditions, historical and cultural heritage as well as he impacts of local socio-economic systems.

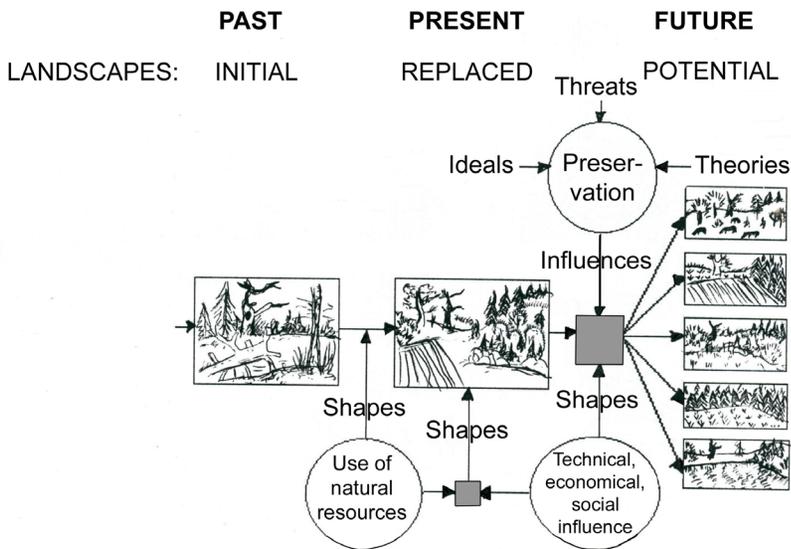


Figure 1. The principal model of landscape development (after Emmelin, 1995).

And still, one has to reckon that despite many joint efforts of different administrations, politicians, researchers or other decision-makers to steer and (re)direct the landscape evolution, landscape is still mostly a mixture of autonomous actions and actions planned by people, rather than being a planned process (Antrop, 1998; I). Certainly, socio-economic and political changes can influence and shift these actions to some extent, but specific changes tend to

depend upon individual considerations and preferences. Whatever the reform or socio-economic shift, these are "translated" into actual landscape changes by the actual users of the land, not by planners, experts, administrations or other stakeholder groups.

2.1.4. Local people

There are different stakeholder groups involved in landscape study and management (Alumäe et al., 2003; Palang et al., 2003). On the backdrop of this dissertation, the distinction between locals and non-locals proved to be most useful. Non-locals certainly form a large group and can be distinguished into further groups. In this dissertation, experts/planners are the most often discussed non-local stakeholder group that in a way contrasts to local people. The concept 'local people' means people who permanently reside in the area; people who are dwellers of the area and consider it their home. This fits Heidegger's viewpoint about locals as people characterized by continuous dwelling in the landscape that has linked the people to the environment (Relph, 1976; Tuan, 1990; Peil 2001). The local residents can be divided into smaller groups as well, such as farmers, administrative workers, pensioners, commuters etc., or be distinguished on the basis of their interest in and attachment to the area, or else. These groups often overlap and since it was not necessary for the aims of the thesis, no further distinction regarding the local people was made.

Based on the ways the people locate themselves within the landscape, also insiders and outsiders can be distinguished. Local people can be considered as insiders (*sensu* Soini, 2004) of the specific landscape, while experts and planners are outsiders. In this dissertation, some part-time residents (second-home owners), who had very close ties and were especially familiar to the area, were also considered as local people, since they had an inside view to the landscape. According to Peil (2001), the local residents can also be characterized by knowing things, but being unconscious of this knowledge. Involvement in landscape and the environment is based on use and ownership rather than investigation or observation.

I myself as a landscape expert and researcher was an outsider in most areas of practice, with one exception: in 2002 I became a second-home owner in the Obinitsa area, the region covered by Papers I and V. During these four summers and more weekends the local people grew to know and accept me, as well as I got to know them. Therefore, in conducting the second study in the area (Paper V), I found it easier to carry out the study because I already knew more about the community, and the community knew me, which definitely turned out to be an advantage, helping me to get deeper insights into landscape perceptions of the local residents. By knowing the cultural background, social networks as well as everyday habits and working activities of the people, it was easier for me to understand their statements and remarks, as well as the understanding of

landscape. At the same time, the personal bond to the area made me have another relationship with the landscapes in discussion, since I was emotionally attached to the area. On one hand, I could easily follow the particular landscape development, but on the other hand, being an insider possibly made me see things from personal aspect, being biased towards my own preferences and views on the local landscapes.

2.1.5. Planning in Estonian context

In Estonia, the Planning Act defines four spatial planning levels (RT, 2002). The national planning level includes the territory of the whole country. On county planning level, plans can be designed for part of a county, territories involving more than one county, or parts of their territories, and as thematic plans to specify and complement the valid county plans. At comprehensive planning level, plans for a rural or urban municipality are prepared and again, plans can be designed for territories involving more than one municipality, or parts of their territories, and as thematic plans to specify and complement the valid comprehensive plan. Detail planning is compiled and used as basis for construction activity and land-use in part of the territory of a municipality or town in the short term.

The research covered by Papers II, III and IV was conducted as part of county spatial planning, as the layer of “valuable landscape” of the thematic plan called “Defining environmental conditions for the development of land-use and settlement structure” initiated by the Planning Department of the Estonian Ministry for Environment (KKM, 2001). The county spatial plan was meant to set the legal framework for land-use and other activities, and form the basis for comprehensive plans in the future.

Meaningful landscape planning emerged in Estonia in about 1970–1980ies. At the time, it was quite far from what we consider as landscape planning today, and utilized different terminology and concepts, such as ‘functional zoning’ developed in University of Tartu in early 1970ies (Raik, 1971), as part of the proposed national territorial planning scheme (Jagomägi, 1983; Külvik, 2002). Often the main focus was on land-use planning rather than on conservation aspects, and the initiatives, as well as finances came mostly from local collective farm authorities. Most activities were aimed at increasing production; however, also aesthetical and recreational considerations were often taken into account. The examples of such considerations include the creation of numerous artificial lakes, small pavilions and bridges in parks, etc. Külvik et al. (2003) have pointed at two regional-scale undertakings of landscape planning from that period: the proposal for riverside green corridors as part of recreational landscapes around Tartu by the eminent conservationist Jaan Eilart (e.g. Eilart, 1964; Eilart, 1976) and the scheme of buffering natural areas in the industrial North-East Estonia initiated by landscape conservationists.

In late 1980ies, Estonian landscape planning developed to involve more landscape and ecological conservational issues, like the elaboration of the theory and practice of ecological networks (Mander, et al., 1995). Conceptually, the model of compensating areas network developed in 1980ies is still in use today (Külvik, 2002).

Current Estonian legislation does not define or legitimize landscape planning. However, the demand for landscape planners is great and the subject is taught in several universities.

2.2. Communicative landscape planning

Until quite recently, landscape planning was seen as the task of planners, and often remained the domain of natural sciences (Luz, 2000). Luz criticizes this biasness, stressing that landscape planning activities should deal with the social situation of the people whom the planning affects, as is the case with any other planning type or level. Participatory methods, also called *communicative* methods, and techniques arose in the late 1970s and early 1980s, in Europe even later, in response to top-down approaches to research and planning (Ericson 2006). Estonia has had even less experience with communicative planning, as during Soviet times, planning did not involve democratic participation of or notification to local people.

Although rather reluctantly, planners, politicians and other institutions active in landscape rhetoric have now realized that the time for traditional, expert-based planning is over (Scott, 2002). Even if demanding more efforts, time and commitment from planners, the open-minded discussions held with the local residents can lead to a much better understanding of the local circumstances, as well as understand what the local population wants and needs from their landscape. Participatory approach in landscape planning aims at achieving socially acceptable solutions for landscape management. If the local residents are left out of the planning process, they are very likely to reject the plans and even work against the imposed plans, no matter how professionally prepared. As pointed out by Ericson (2006), participatory methods offer local people a role in research and planning that can result in solutions, which are more appropriate for the local context.

The methods for communicating with and involving the local residents are quite numerous. However, it is the different visualization tools that have been found to be especially effective in participatory planning processes (Tress and Tress, 2003b; Tyrväinen et al., 2006). In information society like modern societies of today, overloaded with different kinds of information, visualization plays more important role than ever. By visualizing the possible landscape changes, the researchers/experts/planners and local stakeholders can come closer to finding a common ground in understanding the landscape – to speak

the same language, so to say. Landscape visualizations as a tool can especially effectively be used to illustrate the visual consequences of management options and to present different scenarios for future development. Furthermore, visualization can help to create basis for communication with local stakeholders, e.g. in gathering local information related to the specific planning area and to learn more of the stakeholders' opinions, values and preferences regarding landscapes around them (Tyrväinen et al., 2006).

The hidden agenda behind the participatory approach is to get people involved and interested in landscape issues, as well as to help them realize that they can influence landscape changes in any direction. Furthermore, participatory approach in landscape planning can help the local residents to better identify with and appreciate the local cultural and historical heritage, as well as other values related to landscape. The same aspects are spotlighted in the European Landscape Convention (Council of Europe, 2000), the first international treaty focused on the protection, management and planning of European landscapes:

If people are given an active role in decision-making on landscape, they are more likely to identify with the areas and towns where they spend their working and leisure time. If they have more influence on their surroundings, they will be able to reinforce local and regional identity and distinctiveness and this will bring rewards in terms of individual, social and cultural fulfilment.

Another important document to bear in mind when discussing the future of rural landscapes is the European Rural Heritage Observation Guide (CEMAT, 2003). The guide, endorsed by the Ministers responsible for Regional Planning at the 13th Session of the European Conference of Ministers responsible for Regional Planning (CEMAT), has set a number of challenges and objectives with the aim of helping to restore the town-countryside balance and seeking to promote the rural world's resources as a development factor. Among other concerns, the guide specifically underlines the local residents as the main enhancers of a territory's overall heritage. "Local populations are at the heart of rural cultural heritage. ././ It is they who can make it come alive on a daily basis." (CEMAT, 2003: 88).

2.3. Landscape preferences

The main common ground behind all the studies included in this thesis is the need to investigate landscape preferences of local people from the planning aspect, and to involve them in the planning process. Landscape preferences demonstrate the expectations, demands or needs of the landscape users (Gómez-Limón and de Lucío Fernández, 1999). As noted by Kaplan and Herbert (1987),

preference ratings may serve as an effective participation tool to identify differences among interest groups.

Moreover, with the aim of planning for the local residents rather than for experts in mind, it has to be retained that several studies have demonstrated that experts look at the world differently than lay persons, and are often unaware of these differences (Kaplan and Kaplan, 1989; Ryan, 2006). Indeed, planners and the public have been found to have very different aesthetic preference for proposed developments. Even though experts are invaluable resources in their own domain, they are “a dubious source of ‘objective’ judgment about what people care in the landscape” (Kaplan, 1988: 54). Therefore, identifying the preferences of local residents is the key in accomplishing the landscape planning result that is socially acceptable and appropriate in the local context. Identification of preferences has certainly several more benefits, e.g. an interesting application of landscape preference studies suggested by Hunziker (1995, see Gómez-Limón and de Lucío Fernández, 1999), who proposed the use of landscape preference as a decisive criterion for agricultural subsidies.

The academic research on exploring people’s preferences for certain landscapes offers a wide choice of papers ranging from preferences in residential environments (Ryan, 2006; Özgüner and Kendle, 2006) to evaluating preferences regarding forest management in indigenous communities (Lewis and Sheppard, 2006), and many others (e.g. Keisteri, 1990; Komulainen, 1999; Gómez-Limón and de Lucío Fernández, 1999; Egoz et al., 2001; Kaltenborn and Bjerke, 2002; Scott, 2002; Arriaza et al., 2004 to mention a few). Major research on this issue, especially the methodological research on human perception of landscapes has been conducted by environmental psychologists Steven and Rachel Kaplan (e.g. Kaplan, 1973; Kaplan, 1988; Kaplan and Kaplan, 1989 and many more).

Certainly, perceptions and preferences vary a great deal, but it would be misleading to claim that variability and subjectivity are too wide to provide any scientific basis. On the contrary, there is regularity, as there is variability. As with everything else, identifying and understanding that regularity is crucial to appropriate policy- and decision-making (Kaplan, 1988).

It is of main interest to identify what are the driving factors behind personal landscape preferences and what influences the regularity of preferences. Most commonly the studies focusing on landscape preferences suggest the cultural background or historic knowledge of the viewer to be a main determinant of preference for a given landscape, stressing that people interpret or ‘read’ the landscape based on their own cultural context (e.g. Tuan, 1974; Cosgrove, 1989; Lowenthal 1997; Muir, 1999; Daniel, 2001; Egoz et al., 2001; Antrop, 2005 etc.). Orland (1988) and Ulrich (1983) have questioned that statement, indicating that studies investigating cultural variations regarding landscape preferences have largely failed to link any difference in evaluations of the landscape to differences in cultural backgrounds of the respondents (Orland, 1988: 366–377). A number of other researchers, active in the realm of

“objective” paradigm, have claimed that the role of culture is by far overestimated and that preferences tend to be universal rather than culture-based and can therefore be modelled. The model-based research has found great interest among scientific communities when trying to explain human behaviour related to landscapes (Gude et al., 2006; Lewis and Sheppard, 2006; Ode and Fry, 2006). Nevertheless, computer-based models tend not to work very well in predicting the personal behaviour, since they rule out subjectivity as a determining factor.

Also, preference is assumed to increase with familiarity. On the other hand, this statement has been questioned as well, e.g. by Kaplan and Kaplan (1982) who argue that the effect of familiarity on visual preference is complex, rather than necessarily positive or negative. However, the relation between preference and familiarity is always positive when people are emotionally attached to the landscapes (Kaltenborn and Bjerke, 2002), i.e. the particular landscape’s identity value forms a decisive constituent in perception of the landscape. Furthermore, the landscape preferences of different population groups are suggested to depend on the uses which these groups apply to the territory (de Lucio and Múgica, 1994). Therefore, the preferences of active farmers can be very different from those of the second-home owners or “rural intellectuals”.

In a nutshell, it has been understood by experts and planners that role of local residents in landscape evolution is inestimable, and the local people are the ones making the landscapes become alive. The relationship between landscape preferences and expectations means that these should be taken into account in the context of an environmental planning involving participation and democracy (Gómez-Limón and de Lucio Fernández, 1999), because policies, planning practices and other measures are only then well-applied if there are actual changes at the local level. The successful implementation of policies, plans and strategies presumes that local people have to support the envisaged aims (Komulainen, 1999; Luz, 2000; Scott, 2002).

3. MATERIAL AND METHODS

3.1. Methods used

Two kinds of approaches have been employed in this study. Both of these focused on investigating perception of landscapes by people, rather than objectively evaluable features of landscape (see Daniel, 2001; Wascher, 2005).

The first approach, scenario study, (Papers I and V) was drawn from entirely academic interest and therefore the objectives, as well as limitations were set by the researchers. The case study, using scenario visualization techniques, was carried out in three steps. As the first step, policy analysis was used to create a set of scenarios for the study area. In the second step the scenarios were illustrated by an artist. All the scenes feature the same place in Härma village (5 inh.), Setomaa. A photo of this site from 1995 was taken as the baseline scenario. The third step was an examination of the public's landscape preferences. The local people were shown the illustrated scenarios and asked to rank them in order of preference. Several other questions were asked and issues discussed in the following interviews (see Appendix 1). The first study, carried out in 1999 (I), also aimed for finding out the demand of the local residents for various landscapes by using the contingent valuation technique – “willingness to pay (for the desired landscape)” – method. The number of people interviewed was 16. The follow-up study, conducted in 2005 (V), had a focus on change. Like in the previous study, the scenarios were displayed and asked to be ranked. The interviews that followed addressed mostly the same questions as in the first interviews, emphasizing the change during the past 5 years. The number of interviewees was 23.

The second approach (Papers II, III and IV) had a more applied character, since it stemmed from a planning project initiated by the Planning Department of the Ministry for the Environment to design the theme plan of Valuable Landscapes for county plans in 1999–2001 (KKM, 2001). The project was a part of county planning process, carried out following the same methodology in all Estonian counties. The methodology and procedures used for defining valuable landscapes within the scope of the above-mentioned project are described in Paper II (II: Chapter 5; Fig. 2). It has to be pointed out that the planning task was to focus on (agri)cultural rural landscape, leaving forests, mires and other predominantly natural areas out of attention.

The data behind Papers II, III and IV was collected from 3–6 Estonian counties. In addition, more detailed studies, following similar methods were carried out in one more county – Saaremaa (Kaur et al., 2004; Sooväli 2004). In this study I focus only on the results of the inquiries made with local people and interest groups. In order to find out the preferences and value judgments of local people, questionnaires and interviews were used (see Appendix 2). Preference

was given to open questions, which avoid prejudices that can be caused by pre-given answers. The effectiveness of this method has also been stressed by Keisteri (1990), who strongly recommends open-end questions and “just let them talk” method. In the course of assessing landscapes in the case areas, we used questionnaires that differed a bit between counties. Questionnaires were distributed at public gatherings, at schools, local administrations and among local interest groups. In addition, we used open interviews with 1–2 to four persons at a time. Altogether we got feedback from about 1300 people in the study areas.

3.2. Study areas

The studies presented in Papers I and V were carried out in the Obinitsa area, Setomaa, a peculiar historical and ethnical province located in the most south-east corner of Estonia (Fig. 2). Setomaa has an interesting history that differs from that of the rest of Estonia. While the rest of the country was Christianised by the Teutonic knights in the 13th century, Setomaa adopted Orthodox Christianity, being part of the Pskov region in Russia. Setomaa was united with Estonia in 1918. This different history has also different reflections in the landscape. It is also a peripheral area, which can be classified as one of the very few areas in Estonia having traditional local landscapes (*sensu* Sooväli et al., 2003).

Setomaa is also a border of different religions, languages and cultures, where Setu and Russian villages have coexisted together for centuries. Setomaa people have lived and are still living figuratively between two worlds – Eastern countries on the one side and, Estonia and Western countries on the other side.

The Setus, although being an Estonian sub-ethnos, are culturally much influenced by the Russian impacts. The language is a dialect of Estonian, but their architecture, religion, traditional costumes and way of life resemble more those of Russian. The new independence of Estonia in 1992 cut most of the Setomaa once again off Estonia. Only four of the former eleven parishes remained within Estonian borders.

The area under study belongs to the Meremäe rural municipality. Obinitsa village (240 inh.) is the biggest settlement of the municipality. Physically, the Obinitsa landscapes can be defined into two broad classes: light, dry pine forests and open agricultural landscapes intervened with rather deep valleys. The area features middle-scale and small-scale farming and a little bit of traditional grazing; forests occupy large areas in the western and northern part of the study area.

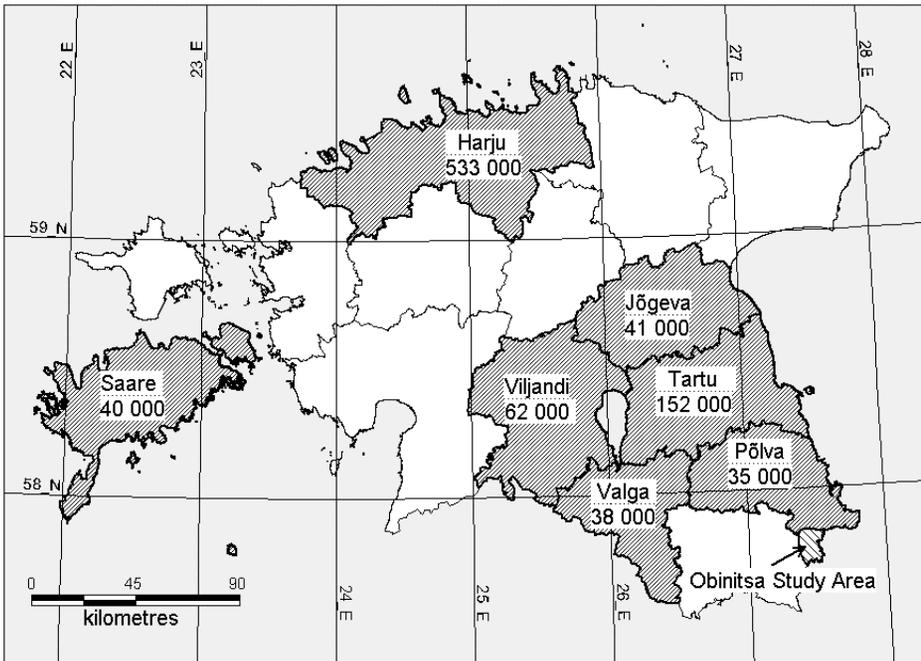


Figure 2. Location of study areas and their population.

The studies presented in publications II, III and IV cover larger territories. The study was conducted during carrying out the valuable landscapes' delimitation project and therefore the case areas were county-based.

The case studies presented in Paper II were performed in three Estonian counties – Viljandi, Jõgeva and Valga. The focus of Paper II was on presentation and development of methodology used in delimiting valuable landscapes on county level. Paper III involves the same counties and Põlva County and presents a more elaborate discussion on issues related to delimiting valuable landscapes in these counties. The analysis made in Paper IV involves even more counties – seven (out of 15) Estonian counties and sums up the main findings from the experience of delimiting valuable landscapes on county level. In addition to the above-mentioned four, Saare, Harju and Tartu counties were covered by this publication.

Although the regional classification of counties can be somewhat argued, it can be maintained that the counties of Valga and Põlva belong to South-Estonia and Viljandi, Jõgeva and Tartu counties are located in Central Estonia (Fig. 2). The Harju County is situated in North-Estonia (surrounding Tallinn), and Saare County, commonly known as the island of Saaremaa, is considered as part of West-Estonia. Accordingly, the geographical variation of case areas is rather high, covering almost all regions of Estonia.

All counties are divided into rural and urban municipalities. The case studied presented in this dissertation focussed on the rural municipalities. The number of rural municipalities in these counties ranges from 10 in Jõgeva County to 18 and 19 in Harju and Tartu counties, respectively. The Harju and Saare counties are rather exceptional on the national scale for several reasons; Harju County mostly because of its location around the capital city Tallinn, thus having a high number of rural-urban commuters and a high suburban population, as well a higher number of towns. Saare County is special because of its more isolated location, characteristic to an island, and a long-term reputation as a beautiful resort, thus becoming a hot-spot for visitors and consequently having its landscapes under great pressure (Sooväli, 2004).

3.3. Data

The general framework of data collection and the used methods is presented in Table 1. The overall empirical material consists of 1345 filled questionnaires gathered from seven Estonian counties and one smaller locality in South-East Estonia. The questionnaires covered the wide spectrum of local people, ranging from local authorities to schoolchildren. Interviews were done with local authorities and other important stakeholder groups, as well as a number of land-owners. Data analysis was carried out by using content analysis technique. This allowed getting insights in the landscapes as understood by different stakeholders. About 80 people of those who filled in the questionnaire within the project of delimiting valuable landscapes were also interviewed, using in-depth interview method.

Table 1. General framework of data collection

Year	Location	Number of respondents	Methods/remarks	Papers
1999	Obinitsa	16	scenario study	I
2000	Viljandi County (Ct.)	290	designation of valuable landscapes (VL)	II; III, IV
2001	Valga Ct.	250	VL	II; III, IV
2001	Jõgeva Ct.	70	VL	II; III, IV
2002	Põlva Ct.	290	VL	III; IV
2002	Tartu Ct.	19	VL; study conducted by P. Pungas	IV
2002	Harju Ct.	60	VL; study conducted by M. Reimann	IV
1999–2000	Saare Ct.	320	study conducted by Kaur et al. (2004)	IV
2005	Obinitsa	23	scenario study	V

The scenario study has two different data sets. The first set, questionnaires from interviews carried out in 1999 (Paper I), includes responses from 16 randomly selected local residents (people were visited at their homes). The second set, gathered during the recurrent study in 2005 (Paper V), with data collected following the same principles, has responses from 23 local people.

4. RESULTS AND DISCUSSION

In the following chapters, the main findings of this dissertation are discussed. The major focus is placed on the relation between the local people and their landscapes, through participatory landscape planning perspective. Landscape preferences of local people are discussed in the light of planning process. Furthermore, the role of local people and their perception of landscape values in maintaining and changing the rural landscapes are studied. The focus of the study has been on (agri)cultural rural landscapes, so no attempt is made to draw conclusions about people's views of natural (i.e. forest, bog) landscapes.

4.1. Participatory planning in rural landscapes

4.1.1. Challenges of participatory/communicative landscape research

As Ericson (2006) notes, integrating local people into the design and implementation of participatory research can be extremely rewarding but is not without challenges. Since a main factor behind successful communication is understandable information for all participants (Tyrväinen et al., 2006), most problems related to participatory approaches are related to mutual understanding of concepts and aims. Based on the evidence from this study, probably the very first, and likely the most fundamental challenge we have faced in our research is understanding the concept of 'landscape', and, subsequently, the notion of 'landscape values' (I, II, IV, V).

The question of how to employ and understand the concept of 'landscape' in the in-depth interviews or in surveys, "if the locals conceptualize the landscape in their own and personal ways?" (Soini, 2004: 84) is being asked and discussed by landscape researchers almost everywhere in the world (III, IV, V; Luz, 2000; Tress and Tress, 2003b; Setten, 2004). On one hand, landscape as a term is a rather specific concept, so ideally it should be redefined for each discipline or study. On the other hand, in many languages, the term is commonly used in a much wider context, but not in the context of geography. This is the case in Estonia (III, V), as well as in other parts of the world (Luz, 2000; Soini, 2004; Setten 2004; Palang et al., 2006 and many others). The research in this dissertation has shown that the concept of 'landscape' (in Estonian *maastik*) is not used in the everyday language of lay people (III, IV, V) in the studied case areas. Accordingly, it is difficult for them to express themselves in "landscape terms", as they don't think or speak about landscape in their everyday life. Instead, they use notions like 'neighbourhoods', 'surroundings' and 'home area' to mark areas that can be considered as landscapes. The unexpected difficulty of

the abstract nature of the concept of 'landscape' has also been underlined by a recent, similar study by Calvo-Iglesias et al. (2006).

Furthermore, I argue that the term 'landscape' is mostly understood as 'scenery' in the language of everyday Estonian, and is therefore used to describe open cultural landscapes. Forest is not regarded as landscape, but something that borders the view, enclosing the 'landscape'. Taken this into consideration, it is not surprising that the respondents did mostly not mention forest, or if they did, it was in context of open landscape, like "I prefer open landscape with forest visible on the horizon". It is important to mention that forest has held very essential role for Estonians and their identity, but they have always referred to it as 'forest', not associating it with the concept of 'landscape', a term that first appeared in Estonian geographical terminology in 1920ies, and has mostly remained to be used by professionals of different disciplines.

The evidence from all Papers proves Peil's (2001) observation (see Chapter 2.1.4) that local people know things, but are generally not conscious of this knowledge, i.e. their ability to express themselves regarding landscape knowledge is rather limited simply because their relationship with the landscape and the environment is different – they have not had the need to put their involvement in landscape into words. This is especially true when talking about the concept of 'landscape' – a term normally not used.

The aspirations to identify landscape preferences and landscape-related values of local people meet several obstacles as well. As shown by evidence in Papers III and IV, a rather technical problem arises from uncertainties of the local residents to trust their own judgment in highlighting the local landscape values, be it natural or cultural-historical values (III). Rather, they refer to features identified by outside authorities/experts who have been involved with heritage issues in the area. This tendency has also been shown by e.g. Stenseke (2000). In many cases, we as planners were forced to persuade the local residents that we were particularly interested in their own individual opinion and that their opinion matters and can affect the planning project, and that there were no right or wrong answers to any of the questions we discussed (III, V).

Furthermore, the studies suggest a strong tendency that people are often not aware of landscape values, nor do they fully understand or value their own role and importance in landscape change within the local community (e.g. Paper I). The same was noted by e.g. Smithers et al. (2005) in Ontario, Canada.

The next issue that one has to keep in mind is the fact that local knowledge is really local, i.e. geographically limited. Based on the evidence of the studies focusing on delimiting valuable landscapes (II, III, IV), it can be concluded that county-level is too wide for locals; instead, their attention was centred on a particular area around their home (usually one third of the county or less) and proceedingly, their knowledge and identities were linked to those smaller units (IV: 878–879). Particular examples are Vooremaa, the drumlin field in Jõgeva County, and the settlements of Russian Old-believers on the coast of Lake

Peipsi. The latter area is very precisely delimited by local people and they seldom communicate outside of these tight borders of homeland (II: 228).

Yet another point of interest, strongly related to the above-mentioned problem of understanding the concept of 'landscape', is the valuation of objects and places rather than landscapes in the scientific landscape ecological sense. The studies focusing on identification of valuable landscapes (II, III, IV) demonstrate that the respondents generally regarded cultural features, such as manors, churches and monuments, or outstanding natural objects, such as sandstone outcrops and lakes as most essential valuable features forming valuable landscapes. Only very few respondents referred to more holistic or abstract features like land use pattern, habitat types or landscape types (III).

And finally I would like to point out another methodological remark. Although questionnaires provide a large number of responses, which could be used in quantitative assessment, the oral commentaries that accompanied were often more valuable and interesting to the researcher for the aims of the surveys (e.g. V). Based on the analysis in all presented Papers, interview method serves much better in understanding and communicating the local population. In order to get feedback that makes sense and provides fruitful improvements to experts' knowledge, any academic or applied research project should find resources, both time and finances, to really communicate with the local residents (see also Antrop and Rogge, 2006). Social and emotional factors should be considered and not be underestimated. As Luz (2000: 157) points out, knowledge of the scientific factors in landscape planning must continue to advance, but it is even more important to break new ground on a social and behavioural-related basis.

4.1.2. The role of communicative participation in planning rural landscapes

The top-down planning practices have gained much and fair critique from many researchers (Luz, 2000; Gustavsson and Peterson, 2003). True, the top-down approach has many advantages, but may and often does result in a situation where planning does not work out in the actual landscape. Having realized this, there is nowadays a growing tendency to take lay people's opinions into account when planning landscapes in most countries of Europe. More and more, planning is based not only on expert judgments, but on the opinion of lay people, such as local inhabitants and different interest groups who will be most directly influenced by planned changes (III: 126).

However, involving the local residents in the planning process, be it county planning, comprehensive planning or classical landscape planning does not benefit only the locals themselves, but communities, regions, countries and the world in general. Although the local knowledge is geographically rather limited, the keeping, maintaining and permanent upgrading of this local knowledge can

strengthen the local identities and sense of heritage, and thereby promote both development and sustainability (IV: 878), both ecological and social. As suggested also by Stenseke (1999), pointing out or showing appreciation for features (and landscapes) of value on the person's land or around his/hers home area will inspire pride and direct him/her to consider the steps they take to introduce landscape changes or to safeguard certain elements. Furthermore, people clearly favour the recognition of landscape values to designation, so activities related to sustainability, environmental management and protection of heritage are better implemented through awareness, understanding and consensus, rather than through regulation (Meldon and Skehan, 1996; Stenseke, 2004).

As Estonia has a short history of democratic decision-making, one of the main tasks of participatory planning projects should be the involvement of people in the planning process, pointing out that they are able to control their surrounding landscapes. As noted earlier, one of the practical aims of this study has been to convince people that they can influence landscape planning and landscape change, and therefore, by discussing and rethinking landscape values in their area they can become better managers of local landscape. Indeed, within the project of delimiting valuable landscapes, several villages and farmsteads already took advantage of the project by using it as an argument to stress the importance of landscape maintenance in their area (III: 135). This positive results falls well in line with e.g. UNESCO's World Heritage important mission to encourage participation of the local population in the preservation of their cultural and natural heritage (UNESCO, 2006).

The need for a bottom-up approach to planning, taking into account and understanding the public's perceptions of rural character and landscape quality, allowing this to intervene in the discussion on the future of the landscape could contribute to guaranteeing the conservation of identity and qualities of the rural landscape that the local residents consider to be important (Countryside Commission, 1992; Gómez-Limón and de Lucio Fernández, 1999; Ryan, 2005). Also, by the participation of local residents the landscape management methods are more likely to be better adjusted to the local context (see also Komulainen, 1999; Stenseke, 2004).

4.2. Landscape values and preferences as seen by local residents

Landscapes and local residents experience a unique relationship of mutual influence: as landscape is being shaped by humans, they simultaneously shape the people living there. Therefore, landscape preferences of people practicing the landscape can tell a lot about the people, not just the landscape itself. The stories of people are also the (hi)stories of landscapes.

4.2.1. Landscape preferences on county-level planning

Based on the results of studies conducted within county planning practices, different stakeholder groups had different views and valuations regarding landscapes (II). The most distinct differences in preferences among stakeholder groups were those between experts and everyone else (II). The same phenomenon has been witnessed by several other authors (e.g. Kaplan, 1973). Experts largely focused on cultural-historical values, such as land use patterns (II, III). Local governments, important and active partners in defining valuable landscapes, represented the local people, but at the same time the representatives of the administrations were better able to ‘step out’ of the locality and take a look from perspective. However, the local people still formed the most influential part of stakeholders, and the following discussion, as well as the whole thesis, is centred around local residents. The differences in preferences between local, i.e. insiders, and visitors, i.e. outsiders, were not studied within this dissertation; however, it remains an interesting issue to be studied.

Some generalizations can be made in the attempt to describe regional characteristics and differences in landscape preferences based on the data from seven Estonian counties. However, often the results regarding specific landscape preferences of local residents were rather site-specific, largely depending on physical features of landscape, as well as the characteristic historical-cultural heritage of the area, the latter having a positive correlation to landscape preferences. Research by Arriaza et al. (2004) has also demonstrated that man-made features are among the most important elements of the perceived visual quality of the landscape.

Quite expectedly, the regional differences in the list of valuable landscapes were rather dependent on natural specifics as well as the character of cultural heritage of the areas under study. Typically, the local population attributed the highest value to estate complexes. The study by Keisteri (1990) in Porvoo, Finland, has outlined the same results: large and outstanding estate complexes are attributed notably high value by local people. Here the meaning of landscape is especially compressed to mark a very limited locality (III).

Human-influenced landscapes were highly appreciated by the people of Viljandi and Valga counties, while landscapes of natural beauty were most valued by the residents of Põlva and Harju counties (see II: Chapter 6 and IV: Chapter 3.1 for more). Specific human-nature interrelation and heritage was especially visible in highly positive reception of Vooremaa drumlin field in Jõgeva County and the settlements of Russian Old-Believers on the shores of Lake Peipsi, in counties of Põlva and Jõgeva (IV), but also in Viljandi County, where the list of valuable landscapes was topped by two areas (Heimtali and Karksi) which comprised primeval valleys typical of the county, castle hills and ruins of ancient strongholds (II: 227–228). These mentioned areas possess a number of landscape values, such as natural, recreational, aesthetical, historical and cultural, therefore facilitating in the construction of identity value for the

local people. However, cultural elements seemed to have more influence on the construction of identity value than the natural ones (II).

In summary, the most preferred and highly valued landscapes were those with the concentration of many landscape elements and multiple values. Interestingly enough, the economic value of land(scape) was not brought forward in the questionnaires or discussions. There seem to be two main reasons for that. First, the number of production farms was rather small, and landscape is mostly seen as a place to live in (II: 230). In all study areas, there are only a few full-time farmers, and driving forces behind landowners' decisions regarding landscape were more influenced by considerations for aesthetics, recreation and cultural traditions. Second, the respondents might have understood that in delimiting valuable landscapes, the experts were simply not interested in economic or productionist values of landscape.

In general, clearly visible features of landscape and landscapes with better access are valued (II). Therefore, the most preferred landscapes usually have outstanding landscape elements, such as primeval valleys, manors, strongholds or water bodies. And even though most of the research clearly showed that visible features are the most important ones in forming the landscape preferences of local people, there are a few site-specific exceptions, like Palamuse in Jõgeva County, a literary landscape/village written famous by Oskar Luts in 1912. His novel "Kevade" was somewhat based on the village and people of Palamuse, but most people mix up the reality and fiction (III: 138–139), therefore attributing special value to Palamuse as a place of famous developments.

Site-specific differences in perception and valuation of landscapes are certainly influenced by a number of factors. One interesting factor that was noted when delimiting valuable landscapes was the relation to previous written records (III) as well as personal influence of local knowers (IV). Namely, written records of one's home area seemed to influence the views on local heritage in a positive way. Likewise, the interviews with local residents suggested that if there was someone interested in the local lore, the people in this village and the surrounding areas were much more likely to value the heritage and landscapes of the area (IV). This brings us to the argument that neither heritage nor landscape values are inherent, but constructed.

4.2.2. Preferences of future options

While Papers II, IIV and IV were engaged in specific places and landscape values, with much applied approach, the studies in Papers I and V bring us to future landscape options. Here the discussions focused on theoretical future landscapes rather than the real landscapes or places.

The results presented in Paper I show that 85% of interviewees preferred landscape associated with surprising future. It is noteworthy because this is the only scenario predicting development and indicating well-tended landscapes in

the area. Many respondents stressed the role of agriculture in creating the desired landscapes. Alarming, the least favoured scenario was the ‘no action’ scenario (I: Fig. 2: (D)). In 2005, people of the same area clearly preferred two scenarios: scenario A (I: Fig. 2: (A)) and the “surprising future” (I: Fig. 2: (E)). Like in 1999 (I), the least favoured scenario was the “no action” landscape, but the scenario depicting large-scale intensive farming (I: Fig. 2: (B)) received equally low votes (V). Contrastingly, the latter scenario received the highest ranking from one of the respondents.

Several international preference studies confirm these results, showing that the general public rates modern industrialized agricultural landscapes the lowest, and prefer “old fashioned” landscapes and/or landscapes with many “natural elements” (O’Riordan et al., 1990; Tress and Tress, 2003a; Daugstad et al., 2006). Tidy, productive and well-farmed modern agricultural landscapes, like the scenario depicted in I: Fig. 2: (B) are usually highly appreciated by farmers (e.g. Stenseke, 2000), as was also the case in Paper V. At the same time, it has been found (e.g. Oreszczyn, 2000) that the landscape preferences between stakeholder groups like farmers and non-farmers are not as distinct as thought. The most probable reason is the decrease of the role of agriculture and increase of multifunctionality in landscapes. In modern post-productionist societies, the economic potential of landscape is no more the main basis for landscape valuation; instead, different values form a holistic value, with other values like identity value, aesthetic value, cultural-historical values playing important roles in landscape perception and appreciation.

In addition to the assessment of public preferences, the scenarios in Paper I were also evaluated by experts (I: Table 2). While scenario A was seen to fit best to the current concept of Obinitsa landscape and scenarios E and C were also considered coherent with the current landscape, scenarios B and D would introduce large-scale landscape changes and the total loss of the present landscape appearance (I: 89). Moreover, drastic changes as such are generally considered annoying by people and are resisted.

Such outcomes should signal the decision-makers of the need for change and elaborate planned actions, and draw attention to the fact that future-orientated discussions or planning practices in the area are seriously needed. Since the ‘no action’ scenario was seen as the worst case both by local residents and experts, it is clear that action has to be taken to avoid the coming true of this least desired scenario.

It is often easier to say what we do not want than what we want. However, the findings of all papers in this dissertation cast some light on what the local residents want of their landscapes. In general, people like the landscapes they live in, but would like to see increased development, well-farmed landscape and well-tended households (I, IV, V; also Komulainen, 1999; Daugstad et al., 2006). These statements prove that local people are well aware of changes, such as depopulation, land abandonment and rural decline in Estonian rural areas, seeing these as threats to the very essence of Estonian countryside. For most

people, a “rural idyll” constituting of cultivated fields, tidy households and cattle on the foreground, represents the ideal rural landscape that they wish to see around them (V).

4.2.3. Aspect of time in evaluating landscape heritage

An interesting, yet not much studied feature of cultural-historical heritage and landscape conservation, that proved important in this study, was time aspect. Both history and culture have many layers, just like landscape does. These layers have formed and accumulated in different time periods, complementing and replacing the older ones. It is also clear that landscape is a process, not a state. If so, changes in landscape, and also the changes of inherent cultural-historical layers are inevitable. However, most contemporary societies have agreed that cultural-historical heritage in landscape is important and has to be protected (CEMAT 2003; Council of Europe, 2000; UNESCO 2006; KKM, 2001 etc). The question rises, how much and specifically what can we protect, without turning the landscapes into museums? Clearly, some landscapes, and landscape elements are more valuable than other but where do draw the line?

Based on the findings of our research, elements and features characteristic to time period 100–300 years ago was found to be the most highly valued among local residents of all case areas (III: 139–141). Older features than that are usually either very badly preserved or simply forgotten. The traditional farming period has found the most support as far as landscape appearance is concerned. The same results have been presented by e.g. Keisteri (1990), and Peterson (2005), who has demonstrated that the time period considered most important in landscape conservation with the aim of authentic look in mind is the time just before mechanization. Recent history, mainly the post World War II period, the one of the previous social formation (*sensu* Cosgrove, 1984) was mostly not considered as worth protection (III, IV). Even more, people felt confused and uneasy about inquiries made about this period and the characteristic kolkhoz/sovhoze landscapes. Many interesting discussions could be initiated on this topic; however, it seems that the Estonian society has not yet overcome the Soviet shock and is not ready to neutrally discuss it or look back at it; therefore literature on this topic is scanty.

In our research, we have dared to make some conclusions (see III for more). First, we have the impression that the Soviet history is too recent, and people have been too personally affected by this period. So, for most people, especially older generation, it is not really history yet, but a story of their life. Second, the settlement and land use patterns of the Soviet time were perceived as unnatural, unaesthetic, not harmonious and ecologically unfriendly (III: 140), being imposed on people and landscapes by a foreign power.

Interestingly enough, the highly valued estate complexes and landscapes from 13th–19th century also represent the foreign power – that of the feudalists.

Still, these traces are seen as valuable and people are clearly proud of these (III, IV). Therefore, our argument is that it is not so much about the foreign power, but rather the time distance that separates us from that. According to Olwig (2001) and Gustavsson and Peterson (2003), people often consider ‘the past’ as paradise, and have nostalgic feelings associated to it. At the same time, the past is like a foreign country, where people act and do things differently (Lowenthal, 1985), and people of today observe the past as outsiders. Most probably, eventually the Soviet period will become history, too, and discussions about protecting Soviet collective farm heritage will be likely to start.

4.3. Scenario approach to studying landscapes

Over the past decades, major changes have taken place in Europe's rural areas. In Estonia, these changes have been especially drastic due to the political shift some 15 years ago. Like elsewhere in Europe, these changes include contrasting developments like depopulation and land abandonment in some regions, and urbanization and agricultural intensification in others. A multitude of studies have addressed concerns for changes in rural landscapes of Europe. These concerns range from socio-economic (Will there be a future for European farmers?) to ecologic (Can the loss of biodiversity be halted, or even reversed?) (Westhoek et al., 2006: 7).

With these concerns in mind, scenarios as a technique for analyzing the effects on the landscape of human activity have become to be used as one way to predict the results of different decisions and to discuss the future of landscapes. Scenario studies aimed at investigating rural landscape and the future of rural areas in general are numerous (I; V; Tress and Tress, 2003b; Lewis and Sheppard, 2006; Verburg et al., 2006 for more) and likely to increase. And even though the specific methods and use of technology in creating and depicting scenarios may vary a lot, most scenario studies share some important points: they focus on visualization, future development, communicating the results of environmental policies and decisions and facilitating the participation of the public (V; Emmelin, 1996).

The two studies carried out within the framework of this dissertation (I, V) had two main reasons for using scenario approach. First, to analyze policies influencing the landscapes in the future and to get an insight into possible futures. Second, to use the scenarios as a tool to communicate landscape changes to local residents. Two of the created scenarios (I: Fig. 2: (C, D)) indicated further marginalization and land abandonment of the Obinitsa study area and were most likely to happen. The land use intensification scenario (I: Fig. 2: (B)) was perhaps the most drastic one in the visual changes it brought along. Finally, the so-called ‘surprising future’ scenario (I: Fig. 2: (E)) opened the perspectives for more unpredictable developments. All these scenarios developed from the

baseline scenario (I: Fig. 2: (A)), which illustrated the ‘current situation’ of 1995.

The analysis performed in the recurrent study (V) demonstrate that practice affirms theory, according to which the real changes in landscape will include elements from various different scenarios, being a mixture of scenarios (I: 91). The picture of actual changes in the depicted Härma village (V: Fig. 4) show the closest resemblance to Scenario C (I: Fig. 2: (C)), with notable elements of ‘surprising future’ scenario (I: Fig. 2: (A), see V: 9–10 for more).

Although scenarios can be very intriguing and even alarming, it has to be acknowledged that the reality will always be a mixture of scenarios. However, scenarios can help us to foresee threats and scope, and take action to prevent or promote certain changes.

4.4. Maintenance and future of rural landscapes

When dealing with landscape planning and the maintenance of cultural heritage in rural landscapes, the researchers have to consider a variety of questions and face many dilemmas. For instance, when does heritage become heritage? Whose values regarding landscape and heritage are the most important ones? How far can we go in landscape management and protection without turning landscapes into museums? Is landscape planning and management meant to benefit local residents or visitors?

4.4.1. Rural landscape replacing the agricultural landscape

Based on the findings of the study, an interesting and serious point has to be raised. Namely, the studies in this thesis indicate that economic values of landscape are not highly appreciated (e.g. II), whilst the most preferred rural landscapes were strongly associated with agricultural, i.e. productionist activities (II, I, V; see also Hall et al., 2004; Daugstad, 2006). Indeed, the histories of farming and rural communities have been closely intertwined, with farmers reliant traditionally on communities for material inputs and service provision and rural settlements oriented socially and economically toward agriculture (Smithers et al., 2006). The ties between rural landscape and agriculture are even so tight that the concept of ‘agricultural landscape’ is often used as a synonym for ‘rural landscape’. Therefore it has been widely recognized that the role of agriculture includes “the conservation and development of the rural environment” (Coeterier, 1994; Gómez-Limón and de Lucío Fernández, 1999; Busch, 2006; Daugstad et al., 2006). At the same time, as stressed by Daugstad et al. (2006), the relationship between cultural heritage and agriculture is of special relevance and also extremely challenging because agriculture is

economic activity, but cultural heritage involves conservation and limits on land use, so it is possible arena of conflicts.

Alarming, the notable preference for agricultural landscapes on the background of rural change, often referred to as a concept of rural post-productivism (Mather et al., 2006), conceals a conflict. It has been affirmed by the results of this dissertation, that people see agricultural decline (and the accompanying processes, like increasing migration away from rural areas, a decrease of agricultural employees, aging of farmers and abandonment of both farm holdings and agricultural land) as a threat to landscapes (see also Busch, 2006), and as a threat to their own well-being. For example, as discussed in Paper I, in Obinitsa area, where agriculture has been the traditional source of income, many respondents showed a concern for the future of agriculture. Especially older people and the residents of remote areas pointed at abandoned buildings and fields as major problems regarding landscape appearance (IV).

Even though it has been realized that farming does not only function to maintain the traditional cultural landscapes, but farmers must also be seen as cultural maintainers and upholders of rurality (Daugstad et al., 2006), the question remains: how to maintain agricultural landscapes and convince farmers to farm in changing socio-economic conditions? Therefore, it is an important planning task, but also a task of national and international policies to sustain the socio-economic situation that guarantees the maintenance of rural landscapes.

Certainly, the rural change embodying first and foremost the agricultural decline is difficult to combat. Rather, rural landscapes should be seen as arenas of multifunctional activities, other functions taking over the role of agriculture, which, according to some authors, has even become economically and socially decoupled from the wider rural community (Cummings et al., 1999; Smithers et al., 2006).

One such emerging function is landscape as a tourist consumer good. The welfare of rural tourism and rural landscapes are positively dependent on each other in many areas of Europe, including Estonia. As pointed out by Garrod et al. (2006), rural tourism desperately needs an attractive and vibrant countryside. At the same time, rural tourism has often been identified as a vehicle for safeguarding the integrity of the countryside resource, enhancing the rural economy and maintaining rural ways of life and landscapes (Lane, 1994; Hall and Jenkins, 1998; Roberts and Hall, 2001). Garrod et al. (2006) even argue that the tourism industry has now become the life belt of many rural communities, having effectively replaced agriculture in its role. Indeed, tourism is said now to be more economically significant than agriculture in many parts of England (Garrod et al., 2006), and supposedly in very many other areas of Europe. At the same time, Hall et al. (2004) have demonstrated that “the public” tends to value farming as a way of life and the traditional cultural role it has in creating and managing rural landscapes. Again, it is an issue worth serious consideration of how to provide these agricultural landscapes in a state of rural change.

Just like agriculture is being replaced by alternative activities, the rural population is changing, many local farmers are being replaced by other rural residents and part-time residents, such as commuters, people involved in urban-type activities and second-home owners. The rural communities have therefore become culturally more diverse than in the past (Claval, 2004).

For this varied population the landscape is not an arena of production any more, but rather an aesthetical commodity (V; Soini, 2004), and they are often the ones especially fond of traditions and authenticity and are interested in maintaining the values of the rural landscape (III; Gustavsson and Peterson, 2003). Mather et al. (2006) refer to these people as ‘lifestyle’ buyers, whose primary objective is not generation of income from agriculture. These ‘lifestyle’ farmers are likely to be mostly concerned with consumption of amenity in the countryside and their decisions concerning landscape are more related to the non-economic values than economic values (II).

In a way it is positive development to have a more diverse group of stakeholders having a say in the development of agricultural landscape, but, as Peterson (2006) points out, it might also involve several conflicts and challenges. First, when farmers are in minority, their generation-long expertise and knowledge regarding the management of landscape might get lost. On the other hand, the newcomers often tend to have clear ideas of what they expect of the countryside, and are often willing to actively participate in landscape conservation and management, but their reference system is different, and there is a risk of losing authenticity to simple tidiness.

4.4.2. Landscape conservation

So, rurality has become practiced and admired by an increasingly wide range of different people. Immediately a new question rises: what is it that they are admiring in the rural landscape and what steps should be taken in landscape conservation to provide these landscapes?

Antrop (2003) has shown that the concern about the loss of cultural landscapes is associated mostly to the ‘past’ rural landscapes, and not to the emerging modern landscapes. As mentioned before (see Chapter 4.2.3), people usually consider the ‘past’ to be more valuable and beautiful than ‘new’ when concerning landscapes, especially rural landscapes, preferring ‘traditional’ to ‘modern’. Moreover, many changes induced by the (post)modern society are seen as a threat to the values associated with these traditional rural landscapes (Palang et al., 2004b). The evidences in Papers presented in this thesis confirm the same trend. Therefore, the threats posed by modern developments, such as fragmentation, urbanization and transportation infrastructures on the essence and identity of traditional landscapes should be taken seriously.

The very fundamental dilemma in landscape and/or nature conservation and management is the question of what to preserve: the current state of landscape

or processes within the landscape? Are the features of current landscape, or of the past landscape period we consider valuable characteristic to its current state, or to the occurring (or past, respectively) processes (Külvik, 2001)? In any case, landscape has to be seen as a developing system, because of the paradox of change pinpointed by Palang et al. (2004b): while “change implies that something is preserved”, then also “in permanence there is some degree of change“ (Jones, 1991: 235).

The question is how much and exactly what should we attempt to preserve and how to recognize the processes that make landscape an authentic living system, without posing threats to its continuity. Should the landscape management be roughly controlled or should we let it evolve in its own natural course? Nowadays Estonia rural landscapes are first and foremost living landscapes. Activities that take place in this landscape, such as ploughing, use of natural resources, building houses etc., form inseparable parts of this landscape. If we try to conserve traditional cultural landscapes as they are at this moment, or as they were 80 years ago, this would mean the creation of museum landscapes. As Gustavsson and Peterson (2003) write, referring also to Coeterier (2002), an authentic rural landscape does not have to be a “frozen time-specific reconstruction paradise”, and preserving landscapes as museums – what Relph (1976) has called as museumization – is probably not what most people want from the countryside (III). Cultural landscape simply can not be conserved as a museum. Rural landscape as a result of meaningful and symbolized human behaviour is a process, with each phase evolving from the previous one (Lang, 1999). Landscape is like a living organism, with its own character, personality and history. The pursuit to preserve the status quo of landscape means that the natural development of landscape would be disrupted. It can be even argued that landscape protection stops landscape development.

The living landscape with people dwelling and acting in it is in constant change, and this is only natural. However, it is important to come to an agreement about which values are worth preservation among all these changes, in order to preserve the most important aspects of rural landscapes: sense of home, sense of place, the beauty and diversity of landscapes, and cultural heritage created by past generations (KKM, 2002). Successful conservation and maintenance of values in rural landscapes is largely dependent on the views and actions of general public.

At the same time, if no action is taken, we will most probably lose a large part of the landscape heritage evolved through millennia and centuries, because most current trends indicate the evolvement of uniform landscapes. So, how to preserve traditional countryside if people, cattle and other characteristic elements are disappearing from the landscape?

A possible solution to this problem could be the involvement of local people in discussing and managing the local landscapes. Conservation of landscape heritage, be it traditional land-use or else, is not possible via research or administrative units, but the success lies in voluntary involvement of local

people. Traditional countryside can remain if the local people, especially landowners, are interested in it. All Papers presented in the current dissertation support the notion that local people themselves prefer traditional, but living and developing rural landscape, and are not as driven by economic factors as often thought. However, the economic and political, as well as natural conditions are those that form a framework for acting in the landscape.

While landscape change is often a major concern of landscape researchers, the studies shown here indicate that lay people, too, are worried about landscapes. The results of interviews often suggested that people really want to care for landscapes, and that traditional, nice-looking image of countryside is important to them (e.g. Paper IV).

The evidence presented in Paper V suggests that the rural decline, which was perceived as a major concern in 1999 (see Paper I and Paper V), and in the studied counties during 2000–2002 (Papers II–IV), has not become a reality yet. Instead, a number of the interviewees stated that fields and houses are actually taken better care of than 5–6 years ago (V). The growth of brushwood that was a major landscape trend in the mid-1990ies, has been stopped and several fields are used as agricultural land again. This was mentioned as the biggest change by the majority of the respondents. The comparison of pictures of the Härma village (I: Fig. 2: (A) and V: Fig. 4) also sends an encouraging signal of positive rural development, which has been demonstrated to be highly appreciated by almost all questioned local residents in this dissertation.

Therefore, planners and politicians should steer their strategies in a direction that would enable the local people to safeguard the landscape while being economically and socially viable. Local views and preferences have to be taken into consideration in order to preserve a living rural landscape with its people – the actual creators of countryside.

5. CONCLUSIONS

Landscape is a complex and complicated concept embodying a wide range of understandings and references attributed to it. One of the most important characteristics of landscape is change. During the past 15 years, Estonian rural landscapes have evolved in a direction that is considered distressing by landscape researchers, local rural residents as well as the general public. The main threats to Estonian rural landscapes include depopulation and land abandonment with all the resultant changes in the visual qualities as well as in the functioning of the landscape. It is therefore of great importance to explore how the actual actors in landscape – the local people – interpret, perceive and value the rural landscape around them, and to involve them in the discussions regarding the future of these landscapes.

The current dissertation studied how Estonian rural communities, i.e. the people living in rural areas value and interpret their landscapes. The research, based on the results of 7 counties and one smaller locality, has shown that local people are mostly very keen on their home landscapes, but their view to landscapes and to the notion of ‘landscape’ is very different from e.g. researchers and planners. The local people of Estonian rural areas do not think in landscape terms nor do they use the concept of ‘landscape’ in everyday language. For them, their surroundings consist of fields, forests, roads and settlements, that can be attributed a name – so, people deal with places rather than landscapes. ‘Landscape’ as a term is a confusing concept, and therefore planners or researchers employing the notion in local rural communication should be careful with the usage of the term, either by specifically explaining and discussing the concept, to achieve a more or less common understanding, or to avoid the usage of the term at all.

The research presented in the thesis demonstrated landscape preferences of local people in the rural areas of Estonia, based on the results of several planning tasks and academic research. In the course of the research, about 1350 people were interviewed or had filled in questionnaires regarding landscape preferences. Most of the data were gained during projects aimed at delimiting valuable landscapes on county level.

It became clear that visible physical features of landscape, as well as the characteristic historical-cultural heritage of the area play major roles in landscape appreciation at the local level in the studied counties. Noteworthy visible landscape elements, such as estate complexes or primeval valleys, influenced landscape preferences a lot. Rural Estonians clearly preferred diverse rural landscapes, with open views and mostly small-scale landscape features. Based on the results of the case studies, the ideal Estonian rural landscape would include agricultural lands, cattle, rural households, and forest in the background.

Based on the analysis of the results from seven Estonian counties, the main regional and local differences in landscape preferences and values attributed to

landscapes were influenced by several factors, the physical features of landscape being the most evident ones. This conclusion is exemplified by the case of Jõgeva County, where people clearly showed the strongest support for the drumlin field, or by the case of Viljandi County, with local people appreciating the outstanding primeval valleys the most, or by the case of Põlva County, where the local list of valuable landscapes was topped by Taevaskoja sandstone denudation on the Ahja River. All these mentioned physical features are particularly distinguished on landscape level, and are especially characteristic of these regions.

However, people were emotionally more attached to human-influenced rural landscapes, considering the local cultural-historical heritage a very vital constituent in their landscape perception. For instance, the Russian Old-Believers living on the coast of Lake Peipsi delimited their landscapes to their home areas influenced by their specific culture. On a larger scale, estate complexes typical of almost all Estonia were very positively perceived in all studied regions.

There are many more factors that can have decisive impact on landscape perception and preferences on the local level, e.g. written records of the area, outstanding individuals living or having lived in the area, or literary reflection of a place. All these factors had positive correlations with landscape perception by the local people.

Even if we know the landscape preferences and landscape-related value rankings of the local residents, and compile planning tasks that should facilitate in fulfilling the desired future, the future evolution of landscape is still not fully predictable or planned. Moreover, future landscapes have several alternatives, depending on individual decisions as well as policies, strategies and other implemented measures. One way to handle the future landscape perspectives is the use of scenarios. Creating scenarios and checking the preferences of local people provide feedback for politicians and decision-makers about the outcome of different policies.

The research presented in the thesis demonstrates two uses of scenario visualization technique. The studies show that scenario approach proved to be a very effective tool for starting a discussion on the future of local rural landscapes. The power of scenario technique to visualize landscape changes opened the respondents up to consider new perspectives of landscape changes. The comparison of the created scenarios and the actual landscape change indicated that the future landscape included elements of different scenarios and that scenarios can be effectively used in discussing future landscape options.

The current dissertation also focused on the issue of involving local people in planning process and landscape research. The research has demonstrated that public participation is very important, since different actors rank values and landscapes differently. Often planners, experts or researchers have a very different understanding of landscape and its values than local people do, and since planning is meant to benefit local people and their landscapes in the first place,

their involvement is of crucial importance in order to achieve planning results that would be accepted and followed at the local level.

The discussions held with local people in all case study areas indicated a strong concern for the loss of traditional rural landscapes caused primarily by the decline of agriculture, and resulting in depopulation, land abandonment and overgrowth of bushes. This concern is an important signal considering that rural landscapes with tended fields, cattle and farmsteads were valued the most among rural people. The rural change is already taking place: traditional agricultural landscape is being replaced by post-productionist landscapes characterized by alternative activities and non-farming residents, as well as the processes that people showed the concern for. However, this change does not necessarily have to be perceived as negative, since the studies in this dissertation demonstrated that people are increasingly interested in landscape management, and the non-economic landscape values, such as identity value, historical-cultural values and aesthetic value are being more and more appreciated by the local actors in the landscape.

The hidden agenda behind the participatory approach is to get people involved and interested in landscape issues, as well as help them realize that they can influence landscape changes in any direction. Often the local people lacked confidence or interest in affectionately managing their landscapes. Paying professional attention to the cultural values of landscape at the local level can contribute to the maintenance of vitality in the rural area. The planning exercises demonstrated in this thesis have shown that communicative planning regarding landscape contributes to local identity and inspires people to take care of the values they consider important in their landscapes.

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SUMMARY IN ESTONIAN

Kohalike elanike maastikueelistused: kaalutlusi Eesti maapiirkondade maastike planeerimisel

Maastik on keeruline ja mitmetahuline süsteem, mis pakub huvi paljudele teadusvaldkondadele. Käesolev uurimistöö käsitleb Eesti maapiirkondade maastikke nähtuna läbi kohalike elanike väärtushinnangute, eelistuste ja tõlgenduste. Ühest küljest on töö ajendatud toimuvatest maastikumuutustest, mida sageli peetakse negatiivseteks: maapiirkondade tühjenemine, põldude sööti-jätmine, võsastumine ja hoolimatu suhtumine maastikupärandisse. Teisalt on töö uurimistöö ajendiks selgitada, kuidas kohalikud elanikud maastikku ja maastikkumuutusi tõlgendavad ning kaasata neid arutellu teemal, millised võiksid olla neid ümbritsevad maastikud tulevikus.

Lähtudes eelnevast, on doktoritöö eesmärgid järgmised:

- 1) Uurida Eesti maapiirkondade kohalike elanike maastikueelistusi;
- 2) Selgitada, kuidas kohalikud kogukonnad oma maastikke väärtustavad ja tõlgendavad;
- 3) Uurida kohalike elanike kaasamise tähtsust planeerimisel ja maastiku-uurimisel;
- 4) Analüüsida, kuidas kohalikud inimesed oma arusaamadega maastikust mõjutavad külamaastikke, nende säilimist ja olemasolevat maastikupärandit.

Töö põhitulemused on esitatud lisas olevates publikatsioonides.

Publikatsioonid I ja V tuginevad stsenaariumuuringutele, millest esimene viidi läbi 1999. a. ja teine 2005. a. Kagu-Eestis, Obinitsa piirkonnas. Maastikumuutuste uurimiseks ja prognoosimiseks koostati neli stsenaariumit, mille aluseks oli 1995. a. maastikupilt. Stsenaariume kujutavaid pilte näidati kohalikele elanikele ning paluti need järjestada vastavalt oma eelistustele. Sama uuringut korrati 2005. a. Lisaks piltide esitlemisele intervjueriti vastanuid; huvikeskmes olid maastiku väärtused ja -muutused. Uurimustest ilmnes, et kõige enam eelistasid Obinitsa piirkonna elanikud arengulist, nõ. üllatavat tulevikku peegeldavat stsenaariumi, mida iseloomustab elujõuline inimtegevus ning majanduslik areng. Kõige vähem meeldis vastanutele nõ. trendi pikendamise stsenaarium – stsenaarium, mille korral mingeid meetmeid tarvitusele ei võetaks ning 1999. a. domineerinud trendid süveneksid, st. majad laguneksid, põllud võsastuksid ning elu kaoks küladest.

1999. a. ja 2005. a. saadud tulemused erinesid veidi, kuid mitte väga märkimisväärselt. 2005. a. võrreldi tegelikku maastikupilti koostatud stsenaariumidega ning oodatult ilmnes, et tegelikkus on segu mitmest stsenaariumist, antud juhul kahest kohalike elanike seas positiivseks hinnatud variandist.

Publikatsioonid II, III ja IV põhinevad peamiselt väärtuslike maastike määratlemise käigus saadud tulemustele. Väärtuslike maastike teemaplaneering on kohustusliku maakondliku teemaplaneeringu "Asustust ja maakasutust suunavad keskkonnatingimused" alaprojekt (KKM, 2001). Eri maakondades (Viljandi, Jõgeva, Valga, Põlva, Harju ja Tartu) on meie töögrupp väärtuslike maastike määratlemise käigus küsitlenud või intervjuerinud umbes 1300 inimest, eesmärgiga selgitada välja nende maastikueelistusi, maastikule omistatavaid väärtusi ning vaateid maastikumuutustele minevikus ja tulevikus.

Töö tulemustest ilmneb, et üks peamisi probleeme, millega planeerijad, eksperdid ja maastikuteadlased peaksid arvestama, on inimeste erinev arusaam maastiku mõistest. Eriti selge on see erinevus maastiku kui mõiste professionaalsete kasutajate ja nn. tavainimeste vahel, kes maastikul elavad. Kohalikul tasandil maastiku mõistet igapäevakõnes ei kasutata, vaid räägitakse pigem kohtadest. Seepärast tuleb planeerijatel ja uurijatel teha palju eeltööd, et leida kohalike elanikega üks keel ning saada mõistetest ühtmoodi aru. Vastasel korral võivad planeeringud, strateegiad, poliitikad või muud eesmärgiks seatud meetmed luhtuda.

Kohalike elanike maastikueelistuste uurimine näitas, et vaadeldud maakondades mõjutasid eelistusi positiivselt eeskätt maastikul nähtavad looduslikud tunnusjooned (näiteks ürgorud Viljandimaal või voored Jõgevamaal) ning piirkonnale iseloomulik ajaloolis-kultuuriline pärand (mõisad enamikes maakondades, vene vanausuliste kultuuripärand Peipsi-äärsetes piirkondades). Kohalikul tasandil võib ilmnedagi veel arvukalt mõjutusi, näiteks kirjandusteoste mõju (Palamuse), aktiivsete koduloo-uurijate või piirkonnast pärit tuntud inimeste mõju. Loomulikult mõjutab inimeste maastikueelistusi ka nende päritolu, tegevusala, hariduslik taust ja palju muid individuaalseid tegureid, kuid antud uurimistöö tulemustest selgub, et üldjoontes, nt. maakonna- või vallatasandil on võimalik inimeste maastikueelistusi ja nende suhtumist maastikusse analüüsida ja nendega arvestada ka individuaalsetesse eripäradesse laskumata.

Doktoritöö tulemused tõendasid, et käsitletud maakondade kohalikud inimesed eelistavad mitmekesisust, elavat külamaastiku koos selles nähtavate ja tajutavate inimtegevuse mõjudega. Oluline on tõdemus, et enamike kohalike elanike arvates ohustab Eestimaa külamaastikke eelkõige põllumajanduse allakäik ning sellega kaasnevad protsessid, nagu külade tühjenemine ja lagunemine, põllumaade söötijätmine ja võsastumine, samas hindavad inimesed kõige kõrgemalt just selliseid külamaastikke, kus vaateväljas on haritud põllud, kariloomad ja toimivad talukohad. See annab selge signaali vajadusest maapiirkondade maastike arengule ja tulevikule enam tähelepanu pöörata, arvestades ka seal elavate inimeste eelistuste ja väärtushinnangutega. Juba praegu on traditsiooniline põllumajandusmaastik asendumas nn. post-produktiivse külamaastikuga, milles sageli annavad tooni turismirajatised ja põllumajanduses mitte-hõivatud elanikud. Muutumas on ka kohalike elanike väärtushinnangud maastiku osas: kui keerulisemal, majanduslikult raskel ajal hinnati enam maastikku majandus-

likku väärtust, siis nüüd peetakse oluliseks ka maastiku identiteediväärtust, samuti ajaloolis-kultuurilist pärandit ja maastiku esteetilist aspekti.

Kohalikke elanikke kaasav planeerimine või maastiku-uurimine võib aidata inimesi ja neid ümbritsevaid maastikke lähendada ning innustada inimesi maastiku ja selles peituva pärandi eest hoolt kandma. Praegu jääb kohalikul tasandil sageli puudu enesekindlusest, huvist ja teadmistest, mis suunaks inimesi maastikule rohkem kavandatud tähelepanu pöörama. Kaasav planeerimine saab aidata tekkida sisemisel huvil ja vajadusel omi maastikke austada, harida ja hoida, mis omakorda tugevdab kohaliku kogukonna identiteeti ja elujõudu, luues aluse Eestimaa külamaastike säilimisele.

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APPENDICES

Appendix 1

Main questions asked in the interviews of the scenario studies.

1. Please rank the pictures according to your preference. /Pictures were presented to the interviewees/
2. Which of these pictures characterizes the best the situation in your surroundings?
3. Describe the ideal landscape around your home.
4. Are there any such landscape elements on your property that you do not want to give up? (e.g., single trees on fields or field margins, stone fence, woods, pond etc.). If yes, then why would you keep these elements?
5. Do you consider it important to maintain the landscape heritage of the past; i.e. do you try to keep the landscape as it has been or do you change the landscape and land use?
6. What has been the most important change in landscapes in the past five years?

Appendix 2

Questionnaire used in delimiting valuable landscapes in Põlva County.

1. Please name noteworthy (beautiful, interesting, unique etc.) places and/or landscapes in your home municipality and elsewhere in the county. Please write the name of the place and/or try to delimit these areas.
2. Which factors do you consider to have the most negative effect on your surrounding landscapes? Please mark three most important factors.
A. waste
B. land abandonment
C. growth of brushwood
D. abandonment of buildings
E. overfelling of forests
F. unfitting buildings
3. How and to which extent have the landscapes surrounding your territory changed in the past 10 years?
4. Are there any landscapes or landscape elements in your home area which are especially typical of your home territory or the Põlva County? Which are those landscapes or landscape elements?
5. Which part of Estonia you would like to inhabit, if given a chance?

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REVISITING THE FUTURE: EMPLOYING SCENARIO RESEARCH IN DISCUSSING LANDSCAPE CHANGES

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Abstract:

In this paper we explore the use of scenario visualization technique to estimate landscape changes and to investigate the landscape preferences of local people. A set of scenarios as a visualization tool can provide a common ground for the experts and the local people, who might have very different understandings of the concept of landscape. The study presented in this article is a follow-up of a study made in 1999 in Setomaa, South-East Estonia. The original study had the objectives to visualize future developments in the area and to identify and explore the landscape preferences of the local residents. In 2005, a re-assessment of those scenarios was done in order to evaluate how predictable the scenarios were and to explore what were the landscape preferences of the local residents. The main results of the research indicate that the local people clearly preferred landscapes that carried signs of life, such as tended households, cultivated fields, and livestock. Also, cultural heritage has become more valued.

Keywords: landscape scenarios, landscape preferences, stakeholder participation, landscape change and planning

INTRODUCTION

In May 1999, a scenario study was carried out in the Obinitsa area, Meremäe municipality, South-East Estonia in order to visualize future developments in the area and to identify and explore the landscape preferences of the local residents (Palang et al., 2000). In 2005, a re-assessment of those scenarios was done.

Why revisit the study area of scenarios? This study seeks to answer a number of questions. First, were the landscape changes predictable and what is the actual situation 6 years later, in 2005? Second, were the changes in preferences predictable?

Have the preferences of the local people towards the landscape changed significantly or remained the same?

In academic literature, there is a variety of papers about studies on landscape scenario approaches (Tress and Tress, 2003a); but not much has been written about how predictable these approaches have been. In many cases, even though the scenario techniques often include stakeholder participation, the studies made remain a one-time-project or academic exercises. Although results are gained by communicating with the local people, thus possibly helping them to consider the impacts of their actions on the local landscape in a wider context, as well as in future perspective, we do not really know the differences in the “before” and “after” situations. This study attempts to fill that gap by a rather simple approach.

COMBINING SCENARIOS AND PARTICIPATORY APPROACH

The recent decade has witnessed an increasing trend for the use of all kind of scenario studies in landscape research. The array of studies varies from forest planning to habitat designation, from watershed planning to identification of land-use change on biodiversity, from urban expansion to rural landuse. Methods and use of technology may differ a great deal, but most of the scenario studies share some important common issues: they focus on visualization, future developments and participatory approach.

Scenario techniques have several advantages over several other methods, the strongest aspect being its power to visualize. In information society like modern societies of today, overloaded with different kinds of information, visualization plays more important role than ever, and “visualization of landscape scenarios is a helpful and powerful tool that makes people easier to understand the changes that result from single choices or preferences” (Tress and Tress, 2003b, p. 188). By visualizing the possible landscape changes, we can come closer to finding a common ground in understanding the landscape – to speak the same language, so to say. Lewis and Sheppard (2005) conclude from a study involving an indigenous community in Canada that scenario visualizations were easily comprehended, and found to be useful and meaningful by participants. Thus, scenarios are not just valuable because of the visions and insights they provide, but also for their function as a tool in engaging stakeholders “in articulating their values, building consensus, or understanding a problem” (Nassauer and Corry, 2004, p. 344).

When dealing with landscape issues, the planners and researchers almost everywhere in the world face the same challenge: how to employ and

understand the concept of *landscape* in the in-depth interviews or in surveys, “if the locals conceptualize the landscape in their own and personal ways?” (Soini, 2004, p. 84, Setten 2004) The problem seems to be overwhelming, whatever the language people speak. On the one hand, landscape as a term is a rather specific concept, so ideally it should be redefined for each discipline or study. On the other hand, in many languages, the term is commonly used in a much wider context, but not in the context of geography. This is the case in Estonia (Alumäe et al., 2003), and elsewhere as well (Luz, 2000, Palang et al., 2006, Soini, 2004, Setten 2004 and many others).

Another problem is the issue of researchers *versus* insiders. As Tress and Tress (2003b, p. 188) point out, “it is challenging for researchers to communicate about future landscapes with non-experts in the field.” Experts are often not aware that their perception of the landscape differs from those of the local people, and that very often their views and language are simply not understood (Alumäe et al., 2003, Luz, 2000, Palang et al., 2004). Different understanding and use of terms can lead to unnecessary, but avoidable conflicts and arguments. Bridging that gap is a major obstacle in understanding and effectively involving the local community in many landscape research projects.

Buchecker et al. (2003) have posed the question: “What prevents local residents from participating in the processes that shape their landscape?” We disagree with this statement, because rural landscapes are, foremost, shaped by the local residents via their everyday activities, their preferences, their tastes, their valuations and attitudes. Marcucci (2000: p. 69) notes that “today’s landscape is in part the result of historical cultural values”. And certainly the future landscapes are therefore already present in the current landscapes, reflecting on cultural values and beliefs about the environment as well. No matter how hard the different administrations, politicians, researchers or other decision-makers try, landscape is still mostly a mixture of autonomous actions and actions planned by people, rather than being a planned process (Antrop, 1998, Palang et al., 2000). Certainly, socio-economic and political changes can influence and shift these actions to some extent, but specific changes tend to depend upon individual considerations and preferences, which are, in turn, a reaction or accommodation to outer processes. Whatever the reform or socio-economic shift, these are “translated” into actual landscape changes by the actual users of the land, not by planners, experts, administrations or other stakeholder groups. It is possible that many studies in (landscape) ecology have failed to see this important aspect.

However, in the new post-productionist society, the agrarian population decreases and is often partly replaced by other rural residents and part-time residents (Soini, 2004). For these people the landscape is not an arena of production, but rather an esthetical commodity. Also, Olwig (2004, p. 42) has noted the role of representation and circular reference in causing landscape changes. Once a landscape gets pictured or described in tourist books, those visiting will be looking for that very image, and they are disappointed if they do

not find it there. To avoid that, the landscape is reshaped to match the representation, to show the tourists what they want to see. This might lead to seasonal effects (tourism-oriented show-time plus tourist-free real-time) and possible misunderstandings of what is real and what is not (Soini et al, 2006).

Buchecker et al. (2003) also observed an alienation process between the local population and their environment, resulting in the withdrawal from the everyday landscape in Switzerland. In Estonian case, this process seems to be two-fold. On the one hand, tourism development and especially urban sprawl support a similar trend – that everyday life is being turned into tourism attraction or just a bedroom of a bigger town. In the first case, the link to local is indeed limited to wrapping the ordinary into attractive cover. In the other, one might indeed question whether the landscape really exists after dark – people drive to work before sunrise and arrive after sunset for half a year, and there is a little time in the weekend to “go local” (Soini et al 2006). On the other hand, in more marginal areas rural landscape is being used to boost local identity. Local residents are increasingly aware of the landscape they are living in, and more willing to take actions and responsibility for it (Alumäe et al 2003). After 50 years of communism while no private ownership existed, people are now very keen on land and eager to grasp opportunities to be involved in decision-making. Although the history of participatory decision-making is not old in Estonia, and many people still do not realize their rights and possibilities to speak along, the situation is improving as people show more and more interest in land and the environment.

RURALITY, AGRICULTURE AND CULTURAL HERITAGE

A wealth of case studies, as well as international conferences and workshops deal with multifunctional landscapes (e.g. Brandt and Vejre 2004a, 2004b). It has been widely recognized years ago that nearly all landscapes have multiple functions, as many different interests and land-uses are combined, and have been intertwined for centuries. Mostly, landscape changes are motivated by changes in the society, and realized by the decisions of the landowner. The need to appreciate the local histories and memories of ordinary people who live, work and use a place must be realized in order to maintain cultural landscapes as a heritage and to sustain its sense of place. The local perspectives are especially crucial since landscape is created and maintained within a local context.

However, landscape is considered as a common heritage (Antrop, 2005), not for the benefit of landowners only, but also for a larger public. So, “what does the public want from agriculture and countryside?” ask Hall et al. (2004). Their review indicates that although no solid internationally valid conclusions can be made, there is a tendency that very often “the public” values farming as a way of life and the traditional cultural role it has in creating and managing rural

landscapes, as well as the open space and scenic beauty associated with rurality. "Rurality" is a term that could be discussed further, since as landscape preferences, also rurality is seen and interpreted differently by different people according to their background, taste and knowledge. However, a number of studies have found the countryside setting of fields, farms, and woods to be an important element in describing "ruralness" (Halfacree, 1995 in Ryan, 2005).

Egoz et al. (2001: 180) describe farmed landscapes as "cultural signatures, the values and motives of the people involved in shaping the landscape. Through their highly visible nature, farmed landscapes also influence people, beyond those living and working in such environments." A landscape is a cultural product, forming an integrated part of the local society. Further, it is an important factor in the continuing process by which local and regional identities are formed (Kaur et al., 2004, Stenseke, 2000).

Agriculture is seen as both a threat to cultural heritage and a caretaker. In post-modern society, with agriculture being challenged by new concepts such as maintenance of landscapes and biodiversity, the traditional cultural landscapes, and rurality as we know it are under threat, as well as the cultural heritage associated with or maintained by traditional agricultural activities. As Daugstad et al. (2006) point out, "knowledge about the connection between agriculture and cultural heritage is mainly related to the multifunctionality debate, and studies focusing on how the agricultural landscape is perceived by different actors". In recent years, however, the issue of the importance of agriculture for maintaining cultural heritage has found its way into national and international debates, such as in WTO negotiations, OECD reports, and EU documents (Daugstad et al., 2006). It has been realized that farming does not only function to maintain the traditional cultural landscapes, but farmers must also be seen as cultural maintainers and upholders of rurality. Ryan (2005) stresses that understanding the public's perceptions of rural character is central to protecting the qualities of the rural landscape that they consider to be important.

PREFERENCES

Landscapes are representations of a range of possible ways of life. What we see in landscapes and how we appreciate them is often a reflection of our values and past experience. This aspect of perception makes people really „see“ different landscapes at the same spot and interpret these landscapes in a variety of ways ascribing different meanings to the same landscape (Antrop, 2000, Egoz et al., 2001). Kaltenborn and Bjerke (2002) have referred that most studies dealing with landscape preferences have shown rather clearly that almost all groups (age, socio-economic etc) tend to prefer natural scenes over built landscapes, water is attractive and openness is preferred to enclosed landscapes.

Studies of visual preference for the rural landscape have found a strong interaction between the cultural and natural in the landscape (Schauman, 1988, in Ryan, 2005). A study in Massachusetts by Ryan (2005) revealed that the rural character was mostly seen in farmland – the rural open space of various types including natural areas, views of nature (forest in the background), and farms. Large open space (farmland) has found to be less attractive, as supported by the study of Kent and Elliot (1995, see Ryan, 2005), who explored local residents' visual preference and also found a higher preference for natural landscapes with cultural elements such as stone walls and farm structures, and a lower preference for cropland.

People show a clear preference for the place to which they are attached. The higher the level of attachment, the more attractive the landscape is perceived to be (Kaltenborn and Bjerke, 2002). Studies by Kaplan and Kaplan (1998) confirm that one of the most decisive factors in differences in landscape preferences is familiarity. People tend to like what they know and experience. So, preference for a certain landscape increases with the rate of familiarity. If familiarity of the landscape has developed into identity value, it most certainly persuades people to prefer that particular landscape.

BACKGROUND

Since most people of Europe and North America live in cities or other urban areas, we mostly read about pressures of urbanization on environment, and the landscape, as well as a well-identified urban-rural migration (Antrop, 2004, Ryan, 2005, Tress and Tress, 2003b, van Dam et al., 2002). But as Antrop (2004) has pointed out, urbanization causes a polarization of space. While easily accessed urban areas with well-developed infrastructure gain more population, attract investments and create jobs, remote rural areas with poor accessibility become abandoned. The Obinitsa area is an example of such remote area, located some 300 km away from Tallinn, the capital city of Estonia, bordering Russia and Lake Peipsi. Also, in everyday Estonian language, often “Obinitsa” is used as a synonym for something very remote and strange, the unknown and uncivilized (i.e. “somewhere in Obinitsa” = “in the middle of nowhere”; “an Obinitsa person” = “someone a bit stupid, uncivilized and very rural”).

In May 1999, a scenario study was carried out in the Obinitsa area, South-East Estonia, exploring the possibilities for landscape changes for the decade to follow. Four scenarios were created to project the possible landscape changes in that marginal area of Estonia (Palang et al., 2000). In 1999, Estonia was still awaiting for the call from Brussels to join the European Union. Although independent since 1991, the future still seemed somewhat unclear at that time. European Union was both feared and dreamed of. In the past six years, a lot has changed. Estonia joined the EU in May 2004 and NATO in 2004.

With these considerations in mind, we prepared a recurrence-study called “Obinitsa revisited” to identify whether the quickly changing nature of Estonian society has left traces on the landscapes of the Obinitsa area, and on the preferences of the local residents.

STUDY AREA

Setomaa, or “the land of Setus”, a peculiar historical and ethnical province located in the most south-east corner of Estonia (Fig. 1), has an interesting and intriguing history that differs from that of the rest of Estonia. While the rest of the country was Christianised by the Teutonic knights in the 13th century, Setomaa was left outside of the Baltic-German realm. It instead adopted Orthodox Christianity, being part of the Pskov region in Russia. Despite dense contacts across the boundary, Setomaa was technically united with Estonia only in 1918. This different history has also different reflections in the landscape.

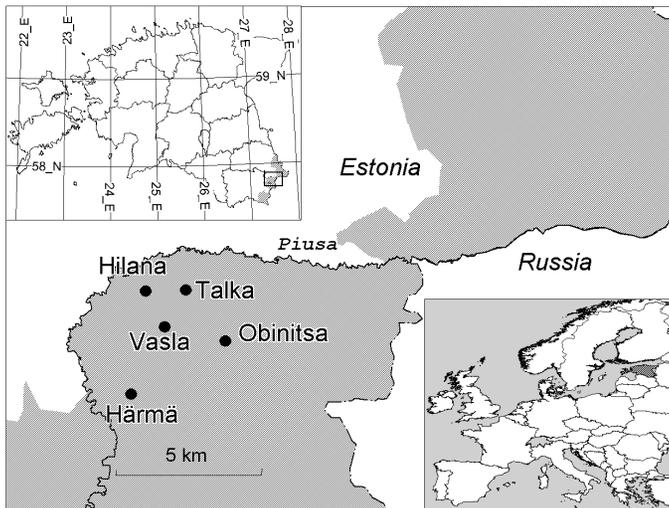


Figure 1. Location of the study area.

The peasants in Setomaa have never been serfs, neither have there been manors here. The Setus, although being an Estonian sub-ethnos, are culturally clearly more influenced by the Russian impacts. The language is a dialect of Estonian, but their architecture, religion, traditional costumes and way of life resemble more those of Russian. The first studies about Setomaa were carried out only after the area was united with Estonia in 1920s. The inter-war period also helped to re-establish ties with Estonia. However, the new independence of Estonia in 1992 cut most of the Setomaa once again off Estonia. Only four of the former eleven parishes remained within Estonian borders.

Compared to the rest of the country, the area was economically rather poor already a century ago (Tammekann and Kant, 1928), and nowadays, too, the area is lagging behind. However, the economic as well as educative and intellectual lag has helped to preserve numerous cultural features that we today value so highly. Already Tammekann and Kant (1928, pp. 52–53) note that the economy of Setus is at a very primary level, which was mostly due to the poor education of people. They stress that many ethnographically interesting traditions and elements, which had disappeared from Estonia, were still well preserved in Setomaa. The authors relate this, as well as the economic poverty, to the ‘absence of culture’. Although at a very primary level, agriculture formed the basis for living.

Setomaa is also a border of different religions, languages and cultures, where Seto and Russian villages have coexisted together for centuries. The Seto people have lived and are still living figuratively between two worlds – Eastern countries on the one side and, Estonia and Western countries on the other side. Life between two worlds makes people conservative and mistrustful of everything new and alien. The old folk song mode, where the chanter can improvise and create songs on the spot, is still alive. Setu pagan gods have coexisted with the church ones and church holidays and associated traditions are still in honour and practiced, especially by the older generation of Setus.

The area under study belongs to the Meremäe municipality, and forms the so-called West-Setomaa. Obinitsa village (240 inh.) is the biggest settlement of the municipality. Physically, the Obinitsa landscapes can be defined into two broad classes: light, dry pine forests and open agricultural landscapes intervened with rather deep valleys. The area features middle-scale and small-scale farming and a little bit of traditional grazing; forests occupy large areas in the western and northern part of the study area.

Like in 1999, Setomaa is still among the poorest regions of Estonia. However, during the recent 4–5 years Setomaa has faced noteworthy national awakening. The change brought by the awakening has been the strongest in the area covered by the case-study. It has many reasons, but there is also a lot of incidental to it. The Obinitsa village has become the intellectual center of Setomaa mostly due to the presence of some active local residents. Additionally, many young families of education have moved to the Obinitsa area in past 4–5 years, contributing to the local culture and development, and attracting more new people to settle in. These in-migrants appraise the local traditions, be it the vernacular architecture, land-use or oral culture. The examples set by the families also somewhat inspire the local people and fill them with belief for Setomaa. However, these new residents are not agrarians in the true sense. They form the group that can be called “other rural residents and part-time residents” according to Soini (2004). For them, the surrounding rural landscape is not an arena of production, but rather a valued background to other activities – a commodity enriched with heritage.

On the other hand, the population of the area is still aging, and most of the young people choose to leave the area. In this area the rural-urban migration still certainly exceeds the urban-rural migration.

METHODS

The original research conducted in 1999 was much inspired by the works of Emmelin (1996) and Jones and Emmelin (1995). The same was now repeated by the same researcher, using the same methods and concepts, thereby making the results reliable. Although neither of the studies were very extensive nor used modern GIS-solutions or mathematical models, they serve well to illustrate the changes in the local rural landscape as well as the changes of preferences of the rural population.

We chose the interview method instead of large-scale mailed survey for several reasons. First of all, we wanted to know what the respondents really thought and felt, and this can be achieved only by *vis-à-vis* interviews. Mailed surveys can give very different results and may not be as trustworthy because people might just tick the boxes rather randomly, and they tend to guess what is expected of them. This is especially true for post-Communist societies like Estonia, where the influence of past top-down planning has made local people unsure about their own valuations and a little bit suspicious about the aims of different observations. Also, as we have found before (Alumäe et al. 2004, Palang et al. 2004), the local people tend to underestimate their personal preferences or values attributed to certain elements or landscapes as a valuable resource for the planner or if it would affect the outcome of the planning project.

Second, the people of the area are of rather high age or just too busy and a high response rate would have been a false hope. During the 13 years of developing democracy, people have become overloaded with all kinds of different decisions to make, as well as information in general, while the practice and potential usefulness of public participation is not yet fully recognized or used by the local residents. And third, it can be assumed that because of the Soviet-time history, when people had to be very careful about what to say, the respondents in Estonia, especially older generation, sometimes feel reluctant or hesitant to fill in questionnaires.

Personal approach is very helpful when overcoming these mentioned obstacles. In addition, the person conducting the survey (H. A.) is not a stranger to the area, so the people know and accept her. As the researcher partly moved to the area between the two survey periods, she found it much easier to carry out the second study because she would already know more about the community, and the community knew her, which definitely turned out to be an advantage. However, all effort was made to distinguish between personal feelings of the surveyor and the results of the study.

Based on the existing knowledge and document analysis, descriptions of possible scenarios were worked out in 1999 (Fig. 2.; see Palang et al., 2000 for more). The scenarios were then illustrated by an artist. All pictures feature the same spot at Härma village. All pictures were drawn to depict similar seasonal and weather aspects. The pictures depicting the scenarios were then presented to the local residents of the case study. All the respondents were then individually interviewed.

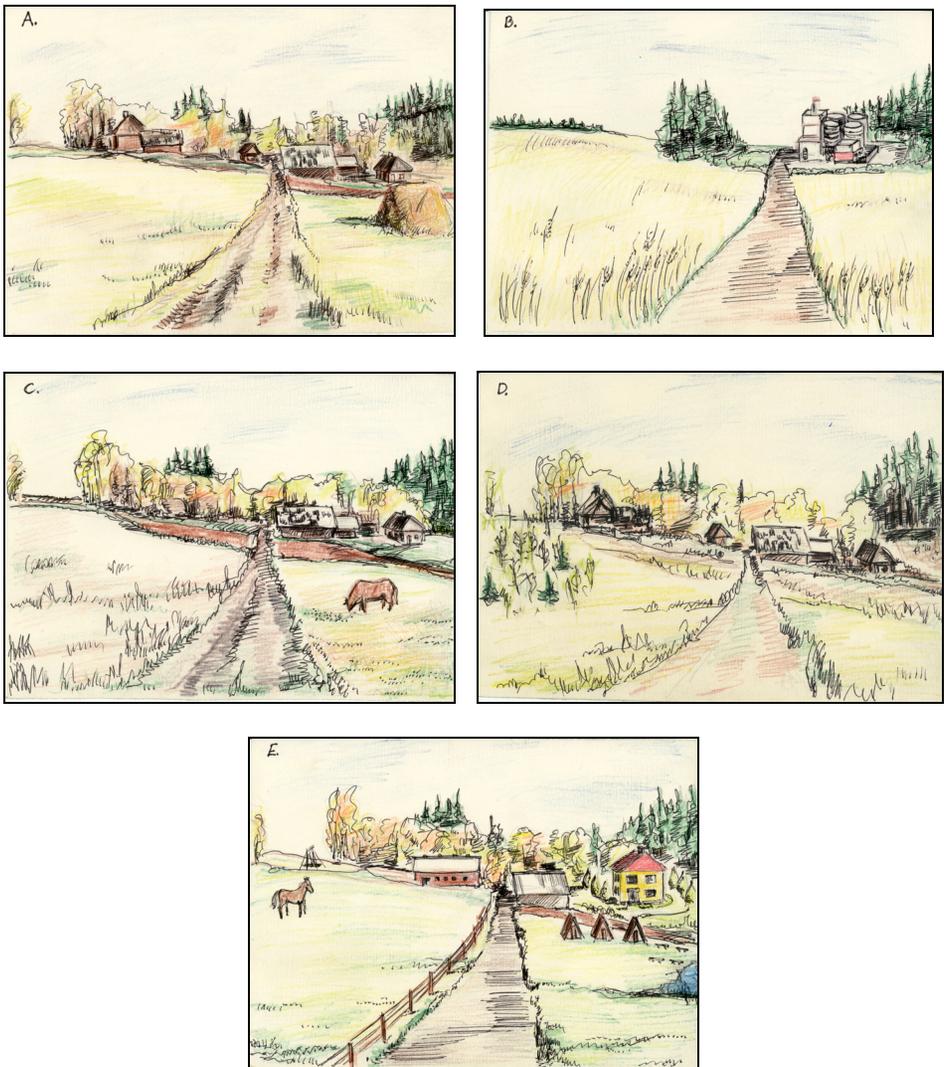


Figure 2. The illustrated scenarios

The questions were a bit modified for the 2005 survey, with the purposes of the study in mind. In both surveys, the interviews included a number of questions, the central issues being land-use and the local residents' preferences towards landscape, or more specifically, the environment they dwell in (Fig. 3). The respondents were shown the pictures of the scenarios and asked to rank these according to their preferences. Then they were asked which of the pictures was closest to the present-day landscape in their area. After that the pictures were put aside and the rest of the questions were completed.

1. Please rank the pictures according to your preference.
2. Which of these pictures characterizes the best the situation in your surroundings?
3. Describe the ideal landscape around your home.
4. Are there any such landscape elements on your property that you do not want to give up? (e.g., single trees on fields or field margins, stone fence, woods, pond etc.). If yes, then why would you keep these elements?
5. Do you consider it important to maintain the landscape heritage of the past; i.e. do you try to keep the landscape as it has been or do you change the landscape and land use?
6. What has been the most important change in landscapes in the past five years?

Figure 3. Main questions asked in the interview.

The study area is rather sparsely populated and villages are small (e.g. Hilana village 9 inh., Härma village 5 inh., Talka village 9 inh.). The number of people interviewed was 16 in 1999 and 23 in 2005. As the sample size was relatively small in both years of the survey, no attempt was made to test for statistical significance.

RESULTS

Landscape changes

There are several ways to analyze the changes. Firstly, we can take the actual picture and compare it to all 4 scenarios and the actual situation in 1999. Secondly, we can look at the whole study area and analyze the landscape changes in a wider context. Thirdly, we analyze the results gained from the interviews and combine the results with the visible changes.

The actual situation in 2005 includes components of different predicted scenarios (Figure 4). The picture looks closest to the Scenario C – what we then called the Result of the EU model 1992 policy (see Palang et al., 2000). The household on the left is abandoned, but one of the houses is still standing. The household on the right is still populated, and seems quite in the same condition

as 6 years ago. There are still small fields and pastures around the houses, but one of the fields on the left is fallow. In addition to Scenario C, there are elements of Scenario E – the Surprising future. These elements include the horse, sheep, cows and the nice-looking fence. Most of the agricultural land is well tended, both by the cattle, sheep and men making hay. As a matter of fact, we handled the scenario E as a prolongation of scenario C, and the current trend affirms that assumption.



Figure 4. Häрма village, pictured on October 2, 2005.

When looking at a bigger picture, i.e. the landscapes of the Obinitza area on a whole, the reality is not much different. Some households, that were in ruins already in 1999, are abandoned, but numerous houses that stood empty in 1999, are now inhabited, either by new-comers or part-time residents. The fields are actually better taken care of, the share of fallow land is decreasing. Many vernacular houses have been rebuilt or repaired. One of the main reasons for this change is probably the introduction of agri-environmental subsidies, but another also the increased local self-confidence (see Soini et al., 2006).

In the interview, there were two questions regarding the landscape change in the past 5–6 years. The question about which of the depicted scenarios fits the best with the current landscape situation was interesting to analyze with the comparison of the 1999 study results. The 1999 survey showed that scenario D (“no action”, prolongation of the current trend) was seen as the one describing best the situation in that year. Six years later, there were two scenes that were considered to illustrate the current landscape the best: scenario D and scenario C (“EU policy of 1992”).

The respondents were also asked to estimate the most important landscape changes in the past five years. While often the respondents found that there had

been no change or that they just could not point out anything, a common answer to this question included an opinion that more fields were cultivated and there was less fallow land.

Some more phrases:

“the growth of brushwood has been stopped, fields are more tended due to the agri-environmental support” (male 39, taking care of large field areas)

“some farms are neglected and in disrepair, while others have been restored and lived in” (female 62).

Landscape preferences

The results of the 2005 survey indicate that there was an equal support for two scenarios: scenario A (“the situation in 1995”) and scenario E (“surprising future”). The tie was so tight that no other scenarios (except one respondent’s support for scenario B) were mentioned as the most preferred ones. Surprisingly, the outcomes of the 1999 survey revealed the majority of the respondents then admired the landscape scenario called “surprising future” (Palang et al 2000). The shift has been noteworthy. However, it was the living landscape that was found as the most attractive in both studies.

At the same time, while in 1999 the least favoured scenario was clearly the “no action” landscape (D), the same scenario received equally low votes with scenario B, the one depicting large-scale intensive farming in 2005.

Like in the previous study, the recurrent survey included some additional questions regarding landscape preferences and people’s views about different aspects of the landscape. One of the questions touched upon the ideal landscape. For most respondents, the ideal landscape surrounding them can be identified as a “rural idyll”, made up of cultivated fields and tidy households. Cattle are often seen as an important element on the “picture”. A number of respondents mention also forest, but the key words for ideal landscape seemed to be farmed land and nice (vernacular) buildings. Some answers include phrases like

“historical settlement and landscape setting on 50–70% of the area” (man, 46)

“traditional farms are settled, buildings fit into the traditional rural landscape” (female 27)

“indented relief with waterbodies, cultivated fields, traditional buildings, forest” (male 31)

“cattle is raised, buildings are not deteriorated” (male 52)

“natural, but with some human influence” (female 33)

“fields should be cultivated and buildings neat” (female 72, female 56)

“tended cultural landscape. Distinctive, rural [as opposed to urban] environment” (male 39)

“I live in the ideal landscape. ././ I like openness, trees and relief.” (female 28)

“the village has to be lived in!” (female 62)

When asked about landscape elements that they consider important on their territory, the vast majority of respondents referred to single (old) trees, sometimes also to vernacular buildings. A few respondents found that they had no such landscape elements on their land.

“any element is important, I don’t like sterile landscape” (male 31)

Further, the respondents were asked about the importance of maintaining the landscape heritage of our forefathers, i.e. whether the landowners try to keep the landscape as it has been, or do they change the land use or something else. Several respondents could not answer the question, so we must conclude that the question was not well-chosen or well-posed. However, this question also needs a bit more brainwork, and people were often not prepared to philosophize on these issues. Still, interesting answers as such were retrieved:

“parts of the heritage I maintain, parts I don’t find necessary to keep and parts I don’t have the strength [finances and time] to maintain” (male 46)

“small fields are irrational to keep, fields should be larger than they used to be” (male 47)

“we try to restore the landscape of 50–60 years ago, to mown the meadows and have sheep” (female 27)

“partly important, partly I change it” (male 31)

“landscape changes all the time anyway, so I also change it. The landscape 100 years ago was not the same as 200 years ago, was it?” (male 31)

“you’ve got to change it, if necessary” (male, 52)

“I am active in landscape management. Some parts of the heritage should be maintained, but the landscape changes anyhow, like unfertile lands are afforested etc” (male 39)

“we don’t change the land-use much, but we don’t know how it used to be. We are not going to cultivate flax any more, are we?” (female 28, new resident)

DISCUSSION

We assume that all landscapes change. Therefore, it was predicted that some change can be detected even within 6 years, which is a short time for determining landscape changes.

The landscape in the study area has somewhat changed in the past 6 years. Although people were skeptic about the future in 1999, and also in 2005, the reality is rather promising. As the interviewees have stated, the fields and houses are actually taken better care of than 5–6 years ago. Certainly there are households that have collapsed entirely, but there are many others that have been re-inhabited and repaired. Also, the growth of brushwood that was a major landscape trend in the mid-1990ies, has been stopped and several fields are used as agricultural land again. This was mentioned as the biggest change by the majority of the respondents.

The results regarding the communication aspect largely coincide with the findings of Soini (2004) in Finland. First, like also our previous studies have indicated (Alumäe et al., 2003, Palang et al., 2004), it proved somewhat difficult to use the term “landscape” at all. The local residents obviously think and act in other categories than researchers do. They see their environment as a working landscape, not as scenery.

As stressed by Soini (2004), also our survey showed that the answers of part-time residents were more specific than those of the long-term residents, and they felt more certain when answering the questions. The local rural residents, often of high age and history in farming alone, felt uncertain and even ignorant about the questions asked; they often indicated that they did not know. The part-time residents were also more versatile in general, and more open about the questions asked. It can be speculated that those who come from elsewhere, who are not as tightly connected to the land, have a better ability to see things in broader context. Very often the part-time residents and new-comers are more aware about the landscape, environment and the values it holds. In most cases, these were the reasons why they chose to move to this area after all.

In landscape preference studies, the respondents are often categorized according to the answers given and then results are generalized to characterize these different groups of people. It is a good method to analyze certain behaviour and interpret the results; however, the conclusions are then very much dependent on the specific categories chosen. The method works very well for large samples, but with relatively small sample within this study, this kind of categorization was not found necessary.

The results of the survey indicated that the local people clearly preferred two kinds of landscapes:

- 1) Traditional landscape characterized by tended fields, the almost-neglected farmsteads and haystacks, which is clearly the landscape formed by past processes

- 2) The well-tended tourist landscape (surprising future) characterized by Swedish-style farmstead, horse riding activities and small camping sites. Should this be a future strategy for landscape?

The first of the supported pictures is a typical view of the Setomaa cultural landscape (of the past?). This found preference is clearly in line with the above-stated tendencies of people preferring the landscape they know and live in. It indicates a strong sense of place and feeling of identity.

It is interesting to analyze why people of the area also preferred landscape of a surprising future. Evidently, that is not a heritage landscape in the Setomaa or Estonian context. So, how to explain the preference for such a new landscape? Most probably, on one hand, media, and tourism agencies are responsible for creating such an image of a successful place. This falls well in line with Olwig's (2004) notion of the circulating reference. Also, for most of people in Estonia, well-fare society seems to be the ultimate dream. For us, Sweden has historically carried the image of a well-fare dream society. That kind of

reasoning has its roots in the “good old Swedish times” in the 17th century, when the welfare of Estonians improved very fast¹. However, Setomaa was the only region in Estonia, which was never allocated to the Swedes; it remained a part of the Russian empire. Still, we can clearly see that the visions of future landscapes are deeply affected by nostalgia as well as utopia.

However, when interpreting landscape preferences, we have to “search the brains” of the respondents better than this. Although the scene with surprising scenario found a strong support from the local residents, they often stressed that it is not the specific lifestyle or the visible features that attract them, but rather the ideas of “tidiness” and “living landscape”. Almost all respondents mentioned their concern for well cared-for rural landscape that includes categories like tended fields, good-looking households and the overall feeling of upkeep as well as presence of life in the landscape. These categories were also the most often mentioned ones regarding the ideal landscape.

CONCLUSIONS

Two questions were asked in the beginning of the study. First, were the landscape changes predictable, and second, were the changes in preferences predictable.

The answer to the first question is yes partly. Many researches have found that scenarios never tell the final truth, they rather give the general direction of a process. And the actual changes indeed followed that general direction. The gradual decline scenario seemed most probable during the first study in 1999, but it has been compensated by the boost in local identity that has bended the actual changes towards the surprising future scenario. Also, visualising the scenarios with pictures proved useful and helpful in setting up the conversation about landscape issues, as often people are unable to grasp the idea of changes from maps and/or texts. Ideally, however, these three methods should be used in combination.

The answer to the second question arises from the comments of the respondents showing clear preference towards living landscapes, the ones that carried signs of life. The two-fold distinction (also noticed by Soini et al. 2006) arose, between those resigned with the marginalisation and those willing to counter it, who value cultural heritage and roots. We also found that the role of culture and identity in shaping landscape changes cannot be underestimated.

In qualitative research, where a lot of knowledge and insights can be gained from “between the lines”, the interview method is a fine approach. Although the answers to the questions gave some quantitative results, the commentaries that

¹ Estonia was part of the Swedish Kingdom between 1583–1710. It followed 30 years of the Livonian War, during this time the University of Tartu was founded, as were numerous schools all over the country, and it preceded the Great Nordic War that killed most of the population and took until the very end of the 18th century to recover.

accompanied were often more valuable and interesting to the researcher for the aims of the survey.

The communication with local residents is of essential importance when discussing any landscape change. Landscape plans or new schemes introduced by authorities can bring fruitful results only if the opinions of the local people are taken into consideration. Moreover, when working out policies and regulations regarding possible landscape changes, the behavioral patterns of local residents should be considered in order to achieve the desired results. The more individuals the researchers talk to, the better they understand the actual mechanisms behind individual decisions regarding the landscape. It has to be realized in scientific communities that in nowadays European landscapes changes are first and foremost caused by human decisions and individual actions, not so much by natural processes. As several members of the scientific community have noted (Bürgi et al., 2005, Musacchio et al. 2005), culture indeed has a significant role in landscape change.

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2001 University of Tartu, MSc in Geography
2001–2006 University of Tartu, doctoral studies in Landscape Ecology and Environmental Protection

Awards

1999 Estonian Academy of Sciences Students' Scientific Award for Bachelor's research on "Using scenarios to predict future landscape changes"
2004 The best contribution of the year for Nature Magazines

Employment

2000–2002 University of Tartu, assistant
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Publications

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