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Schoolchildren's appreciation of the contested landscape of Ida-Viru county, Estonia

The aim of the paper is to bring forth the discrepancies between Russian and Estonian schoolchildren's perception of the declining industrial landscape in Ida-Viru county, Estonia. The opinion of the youngsters is important for the future developments in the area. A survey among 376 schoolchildren in 13 schools reflecting the complex demographic situation (80 percent of the population is Russian-speaking and 80 percent of the population is urbanized) in Ida-Viru County was conducted. No drastic differences emerged but opinions and overall awareness diverge in several important issues. Today's youngsters are coming from at least second generation living in the area and should not be personally affected by the past. Still, the influence of history and culture through social ties and practices emerges in the perception of the landscape.

Keywords: ethnic groups, mining landscapes, landscape perception, landscape evaluation, Estonia

Introduction

Ida-Viru county is the quintessence of the Soviet industrial landscape in Estonia. The county gathers the only serious constellation of heavy industry in the country – oil shale mining and chemistry with power plants. Following the fierce battles of the Second World War forceful development of already existing industrial enterprises accompanied by immigration and urbanisation changed the ethnic composition of the county's population by bringing in workers from the rest of the Soviet Union and removing the rural locals. The collapse of the USSR revealed many aspects of the silently tolerated issues of overproduction, pollution and ethnic conflicts. Today, problems of unemployment, social (i.e. citizenship, language, education, re-learning of profession, high rate of retired people, low income etc.) and ecological welfare still need to be solved.

In this highly complex ethnical and demographical situation we assume that different cultural and historical background of the descendants of the Russian-speaking majority and the Estonian-speaking minority in present Ida-Viru also results in different practices and perceptions of the landscape. Estonian-speaking community is believed to perceive the landscape as marred – former agricultural and village landscape has been turned into "wasteland" of ash-hills, chimneys, shafts and factories, although many of them worked in underground mines or shale oil processing plants. The embellished development of the area provided quick jobs and lodging opportunities, also appreciated by the Estonians receiving their higher education in engineering or chemistry. Many of the Russian-speakers, on the contrary, believed that they have civilized the country, tamed the nature, and initiated progress. Of course these prejudices might trigger nationalist tensions, but we try to avoid these in this paper as much as possible.

The aim of the current paper is to focus on the perception of the landscape by schoolchildren for the importance of their viewpoint on future

development, as they are the ones making decisions, carrying changes into the "real life" and having to live with the consequences. Another reason for concentrating on youngsters is to avoid the dead hand of the past, as for their parents many of whom have witnessed the "unspoilt" landscape and its alteration during the time with different appreciation to it based on cultural background. Schoolchildren, as presumably less influenced by the tensions of the past, are still affected by the family traditions, both cultural and social. For finding out what young people think about the declining industrial landscapes of Ida-Viru county a questionnaire was carried out among both language groups in towns and rural areas. Is there a possibility for finding a common ground?

This article is the first attempt to map out both the physically and socially contested landscape of Ida-Viru county. Traditionally, landscape perception studies prefer to remain on "safe" grounds, i.e. in scenic or otherwise valued areas. So far these kinds of undertakings have circumvented Ida-Viru county, as it is often perceived to be too industrialized.

The study area

Ida-Viru is the north-easternmost county of Estonia (figure 1). It is surrounded by Gulf of Finland in the north, Lake Peipus in the south and the Narva River, also the border river between Estonia and Russia, in the east. In the north, a steep limestone cliff rises up to 60 m above the Gulf of Finland. Further south the land descends towards Lake Peipus, only 30 metres above sea level. The very north of the county is a dry limestone plateau with shallow but fertile soils that have been cultivated for several thousands of years, while the south is a boggy forested area with very scarce population. The most remarkable natural resource, but also the reason for several of the problems the county faces, is oil shale – an oil-containing flammable mineral that can be used both for energy production and chemical industry. Oil-shale layers lie on the ground just some kilometres south of the cliff and descend southwards, being some 45 metres deep by the coast of Lake Peipus. Historically, the north of the county has been a trading route between Scandinavia and Novgorod in Russia, marked by hilltop forts and archaeological monuments. Due to their bad accessibility, the forests and bogs of the south have served as a refuge for all sorts of people, including Russians, during turbulent times. Currently they are important for nature conservation and biodiversity reasons.

Three major changes of the 20th century provide a background for the study: The beginning of oil-shale mining and industry, the inducing of social and ethnical problems due to rapid migration as well as urbanization.

The first attempts to make profit out of oil shale were made during the First World War. Industrial mining started in 1916 (Roose 1990) in the north, where the oil shale layers are more eas-

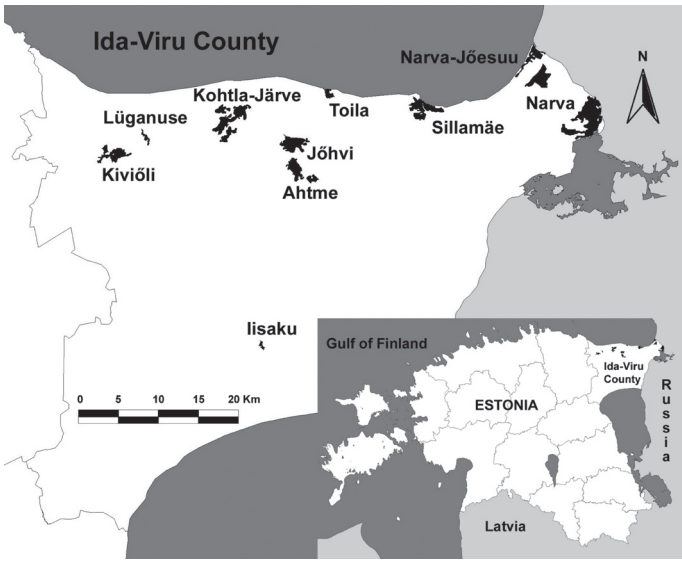

Figure 1. The location of Ida-Viru county and its major settlements.

ily accessible, with open-pit mines and quarries, and gradually moved southwards, using underground mining technologies. The scale remained relatively small until the 1950's, when two power plants burning oil shale were built near Narva and a chemical refinery was established in Kohtla-Järve. In its heydays in the 1980's, the production exceeded 30 million tons; by 2002 this amount had diminished to 11 million, but it is increasing again. Today landforms created by oil shale industry, not counting the underground mines, cover more than 17,000 hectares (5 % of the total area of Ida-Viru county) (Roose 1990) also in formerly densely populated areas.

The second problem is that most of the population increase was achieved by migration from other parts of the Soviet Union. This changed drastically the ethnical composition of the population. The share of Estonian speakers according to 1922 population census was as high as 82.5 percent, while Narva, the biggest town in the area, had the share of Estonians of 65.1 percent. The Russian-speaking minority consisted mostly of fishermen on the coasts of Lake Peipus and the Narva River. By 1989, just before the end of the Soviet times, the share of Estonian-speakers in towns reached 44.5 percent in Kiviõli and only 4.9 percent in Narva, while in rural areas it still remained as high as 68.1 percent. In 2002, fifth of the county population were Estonian-speakers, 69.5 percent identified themselves as Russians, and 10.5 percent identified themselves as having other ethnic origin. For the whole Estonia, these numbers comprise 67.9 percent, 25.6 percent, and 6.5 percent, respectively (www.ida-virumaa.ee). The total population of the area increased from 141,830 in 1922 to 219,657 in 1989. By 1st of January 2002 the total population of Ida-Viru county had decreased to 177,471 inhabitants, of which 156,130 (80 %) lived in towns (www.ida-virumaa.ee).

The third change has been urbanization (see Tammaru & Kulu 2003; Tammaru *et al*. 2004 for more). Before the First World War the area was mostly rural, although Narva has always been the third biggest town in Estonia. In 1922, the share of rural population comprised 72.6 percent; by 1989 census this number had decreased to 10.9 percent. In addition to that the population is ageing: third of the residents of former region capital and centre for oil shale production and processing Kohtla-Järve are retired (www.kjlv.ee).

After Estonia's re-independence from the Soviet Union in 1991, overproduction was cut off and consequently people were laid off causing industrial decline revealing ecological problems and issues of economic and social viability and security. During the passed 15 years, the county still struggles with its negative image and overcomes its shortcomings step by step. Still, the anthropogenic landscape is taken by locals as something usual and not much is done concerning industrial heritage.

Different historico-cultural backgrounds for landscape perception

Deriving from the variety of historical reasons and cultural influences different ethnicities perceive landscapes differently (see Buhyoff *et al*. 1983; Kaplan & Kaplan 1989). Due to historical reasons, time expressed by socio-economic formations in landscapes (see Cosgrove 1984/1998; Palang *et al*. 2002; 2004; 2006) plays a major role in this study. A formation should here be understood as a set of political, economic, social, cultural and ecologic conditions prevailing in a society. As Cosgrove (1984/1998) has put it, every socio-economic formation tries to create its own landscape by wiping off the land the uses and symbolic values of previous formations and replacing these with its own. Differently from Eastern Europe, in Western Europe, the change from one formation to another has been gradual, and transitions (such as from feudalism to capitalism) took decades, if not centuries (see Vos & Meekes 1999). Each formation has also had enough time to develop its own landscapes. A political organization defines land use patterns that reflect the legal system of the country (see Olwig 2002; Mitchell 2003). Through arts and communication, a landscape ideal is created, and that later becomes the yardstick for policy and tourism. It contains memories of the past and preconditions for the future. These representations also explain whether, for example, a new mine should be understood as a sign of progress or as an environmental hazard.

Eastern Europe has witnessed up to four formations during the 20th century (Palang & Mander 2000; Palang *et al*. 2006) and changes between these have been faster and sharper (Antrop 2000). Elsewhere Antrop has argued that traditional landscapes outlived several generations, modern landscapes alter number of times during one generation. What to uphold as traditional becomes a puzzle. Estonians can read (Widgren 2004) the pre-Soviet layers of landscape, especially the "golden age" from the days of gained independence in 1920's and 1930's with private farm landscapes which are at utmost importance for national iden-

tity. Russia skipped that formation having thus three rather than four formations. Consequently the appraisal of Soviet formation among the Russian-speakers is different from that of the Estonian-speakers, who were mainly forced into collective farms. Also the "bourgeois" formation of 1918–1939 was not discussed publicly during Soviet times, or if mentioned, then vilified. In this sense, the understanding of landscape by younger generation should be close to Russian-speakers but here the culture/culture interface (Palang & Fry 2003) sets in.

Palang and Fry (2003) use the notion of interface to illustrate the inherent contestations emergent in landscapes. The past-present-future contestation is important for understanding and appraising landscapes, as explained above, but also for making informed decisions concerning e.g. preservation and use which in turn also involves categories of experts and lay people – what becomes valued. The contestation of cultures in landscape dates back at least to Sauer (1925) who argued that landscapes develop through cycles and at the end of a cycle an introduction of an alien culture could rejuvenate the landscape, or create a new one superimposed on the remnants of the past one. In our case the question remains whether the pre-industrial landscape came to its logical end or rather was abruptly cut off and the past still lives on in the symbolic meanings antagonistic to the Soviet formation, perceived as colonial and thus silently resistant to adaptation and passed on from one generation to another.

Hegemonic discourse expresses itself in uncontested landscapes, claims Harner (2001), but this is only partly true for material landscapes, while remembrance will have a certain time lag. Maandi (2005) and Alumäe *et al*. (2003) have demonstrated that also the physical traces linger and the stories are passed on to the following generation even if the practice has ceased, as the memory goes back for three generations. Following his premise, Harner concludes that when the hegemonic discourse is absent, identity can not be materialised in landscapes, and, as a consequence, landscapes become contested (see also Sörlin 1999) – interest groups have to fight for their right to be.

The diversity of views on landscape could be the impetus for social and ecological welfare – achieving a dynamic balance between industries that provides jobs and areas with high natural and scenic values set aside from industrial development. On the other hand, if the values concerning the landscapes of ethnic groups living in the same area would turn out to be similar, positive changes might happen also outside landscape development – the beginning for finding a common ground would be set. Could the natural monuments serve as joint objects of appraisal? The future lies in the hands of today's schoolchildren who would have to make up their minds struggling with the interfaces of cultures and times: "And if child's vision of nature can already be loaded with complicating memories, myths, and meanings, how much more elaborately wrought is the frame through which our adult eyes survey the landscape. (…) Before it can ever be a repose for the senses, landscape is the work of the mind. Its scenery is build up as much from strata of memory as from layers of rock" (Schama 1995: 6–7).

Methods and material

For finding out what is the perception of both Russian- and Estonian-speaking schoolchildren of Ida-Viru county of the declining industrial landscape, a questionnaire was conducted. Questions concentrated on landscapes and their elements, not so much on ecological, social or ethnical problems.

A written survey was made in thirteen schools in Ida-Viru county in Russian or Estonian language according to the language used in the school. All respondents were students from the same grade, ages ranging between 16 and 17 years with a few exceptions. The survey was conducted on December 10.–14., 2001.

Thirteen schools were involved in the survey: six Estonian-speaking ones and six Russian-speaking ones and one bilingual school. However, all Russian schools and the bilingual school were situated in towns, which reflects the ethnic composition of the population.

In this paper we would like to give an overview of the main results of the questionnaire, therefore only seven categories will be presented. First the ethnic status had to be defined. This was mainly done by asking the language used at school and at home. Secondly, questions related to the size of the family, the education level by both father and mother, as well as their actual work situation were asked to get the educational, social and economical background of each respondent. Thirdly, the overall knowledge about the natural phenomena was determined for each student by asking them to identify a series of landscape features. Possible answers were: (1) direct experience by seeing, (2) indirect knowledge (heard of…, seen in the me-

dia, …) and (3) unknown. This was crosschecked by asking the student to evaluate the element he/she knew about on a ranking scale with (1) spectacular, (2) common and (3) dislike. In the fifth section, the students were asked to evaluate the condition of the immediate environment and landscape on a semantic rating scale. Seven ordinal rating classes were used: class 1 was very positive and class 7 very negative. Sixth, the attitude of the youngsters was collected for a series of statements about the problems in their region on a 5-point scale (from -2 completely disagree up to +2 completely agree). Finally, the informants were asked what place and landscape they would show to a foreign friend (1) certainly, (2) probably, (3) unlikely or (4) certainly not. This would double-check the question concerning landscape features on a more local level giving better idea what feature of the landscape is valuable enough to present it: Whether it is peculiar, common in Estonia but rare elsewhere or having cultural significance.

Results

The ethnic and social background of the respondents

In total 376 students answered the questionnaire. Two thirds of the respondents were Russian, one third Estonian; majority came from urban areas (table 1), which reflects the demographic situation well. Russian schools are generally bigger. 89 percent of the students speaking Estonian at home went to an Estonian school, 11 percent to the bilingual school and none to a Russian school. 93 percent of the Russian students went to a Russian school and 5 percent to the bilingual school and only four (2 %) to an Estonian school. From the students speaking two languages at home, 42 percent attended an Estonian school, 33 percent a Russian school and 25 percent the bilingual school.

In drawing conclusions about social profile of the respondents' family the most ambiguous question was that of the size of the family: the composition of the family as people living together; some included the whole family, including the members living in other places. The certain answers indicated an average family size living together of 4.6 people.

Over 10 percent of the students did not know or did not answer the question about the education of their parents and 5 percent (table 2) were unable or unwilling to describe the actual employment of their parents, in particular that of the father (13 %) (table 3). Apparently the mothers favoured longer and higher education than the fathers and some had higher status jobs. Seven mothers and no fathers were medical physicians. However, the unemployment rate (15 %) is the same for both genders.

Knowledge and appreciation of selected landscape features

The respondents were asked to assess their knowledge about a set of landscape features in random order. Significant differences between the language groups were observed (table 4), some of which are intriguing in particular when dealing with landscape features that are common to the region. A large proportion of the Russian-speaking respondents apparently never had heard about or seen an ash-hill (residual heaps from oil shale burning), while 98 percent of the Estonian-speaking schoolchildren responded to have seen one. A similar response was given for open-cast mine and reforested quarry. Disparities occurred also concerning common landscape features in Estonia that are situated further away from towns, e.g. peat land, alvar, karst, esker and meteor crater. Such features remained especially invisible to Russian-speaking

Table 1. Division of respondents according to the language used in schools and location of schools.

School	Number of schools				Number of respondents	%
	Estonian	Russian	Bilingual	TOTAL		
Urban	3	6	1	10	341	91
Rural	3	0	0	3	35	9
TOTAL	6	6	1	13	376	100
Number of respondents	111	234	31	376		
%	30	62	8	100		

Table 2. Educational levels of the parents according to the answers of the respondents.

Educational levels	Father		Mother	
	Number	%	Number	%
None	38	10	11	3
Vocational training	49	13	65	17
Secondary education	93	24	100	27
Technical education	45	12	22	6
Higher educations	81	22	136	36
Do not know or not answered	70	19	42	11
TOTAL	376	100	376	100

Table 3. Occupation of the parents according to the answers of the respondents.

Occupation	Father		Mother	
	Number	%	Number	%
Worker	118	31	53	14
Miner	25	7	-	-
Driver	32	9	-	-
Employee	31	9	108	29
Civil servant	12	3	69	18
Executive	12	4	11	3
Medical physician	-	-	7	2
Nurse	-	-	17	5
Weaver	-	-	17	4
Independent	9	2	4	1
Unemployed	57	15	51	14
Do not know	50	13	20	5
Other	28	7	19	5
TOTAL	376	100	376	100

schoolchildren. The answers were similar in the division between "seen", "heard" and "unknown" as regards landscape features common in Estonia or very peculiar even in the world (e.g. forest, volcano, fjord, water fall, glacier, lake and cave). In general the Russian-speaking respondents answered significantly more frequently "I do not know", which might indicate a wrong or unfamiliar translation of the term in the questionnaire or lesser travelling habits.

For the appreciation of known landscape features it is obvious that many of the respondents writing in Russian could not evaluate elements they had not seen (table 5). Estonian-speaking respondents seemed to consider water fall, fjord, karst, cave and meteor craters very spectacular whereas Russian-speaking schoolchildren valued more the "common" landscape elements: forest, open-cast mine and lakes. Generally Estonian schoolchildren regarded many landscape features

more common than Russian-writing respondents did. Russian-speaking respondents disliked cliff, forest, water fall, lake and cave – and there is not available any explanation why it was so. Estonians detested unsurprisingly ash-hills and open-cast mines.

Evaluation of the environment in the neighbourhood

Evaluation was asked for seven elements in the immediate surroundings. Most answers show neutral scores but with a slight negative trend for the topics of roads, pollution, housing and nature, and a slight positive trend for living, environment and landscape (table 6). All scores are significantly different between the places, except roads, which get a rather negative evaluation (5 or more) in most places. Extreme negative scores dominate with 20% over the positive ones (8 %). The rural places have the most positive appreciation but have also a large variation amongst them. The largest rural settlement in south, Iisaku, is on the average the most preferred place (3.6), with landscape (1.8) and recreation (2.1) as most positive features as it is situated on an esker. Roads and housing have most negative score in old rural centre Lüganuse (5.9). The most positive appreciation among urban places is for the town of Jõhvi, mentioned first time in chronicles over 750 years ago and having become the capital of the county instead of Kohtla-Järve after re-independence. The most negative urban places are the lodging projects from Soviet period: Kohtla-Järve and Ahtme (4.8). Most urban places have negative scores for pollution, nature, roads and housing, but score astonishingly rather positively for environment.

Table 7 compares the mean appreciation scores of the selected landscape features by language group. Only the answers related to the environment are not significantly different between the two language groups of students. The highly significant differences show that Russian-speaking students give a more negative appreciation of the selected landscape features than the Estonian students, with the two exceptions concerning roads and housing.

Table 4. Knowledge of the selected landscape features by language group (Russian and Estonian) in percentage: 1 – direct experience by seeing, 2 – indirect knowledge (heard of…, seen in the media, …) and 3 – unknown.

Landscape feature	Russian			Estonian			Bilingual		
	1	2	3	1	2	3	1	2	3
Cliff	47	49	4	67	28	6	75	25	0
Ash-hill **	10	13	77	98	2	0	65	15	19
Forest	99	1	0	97	3	0	91	10	0
Peat land	57	40	3	82	18	0	74	22	4
Open-cast mine **	29	58	13	81	18	1	75	21	4
Volcano	4	92	4	3	92	5	4	80	16
Water fall	77	22	2	74	26	0	70	26	4
Alvar **	4	21	75	21	53	26	16	36	48
Fjord **	5	24	72	7	74	19	8	62	31
Karst **	4	37	59	33	55	13	20	44	36
Glacier	9	85	6	9	88	3	13	71	17
Esker **	4	8	89	21	61	17	20	28	52
Lake	96	3	1	97	3	0	95	5	0
Reforested quarry**	15	29	57	46	39	15	46	31	23
Cave *	69	29	2	77	21	2	87	13	0
Meteor crater **	18	67	14	56	41	3	48	48	4

* Significant difference between groups at $p < 0.05$, ** significant at $p < 0.01$.

Table 5. Appreciation of known landscape features by language group in percentage: 0 – no answer, 1 – spectacular, 2 – common and 3 – dislike.

Landscape feature	Russian				Estonian				Bilingual			
	0	1	2	3	0	1	2	3	0	1	2	3
Cliff	54	16	17	14	46	24	29	1	42	42	15	0
Ash-hill	81	7	8	3	19	27	43	34	54	12	27	8
Forest **	22	17	11	51	19	10	71	0	19	27	39	15
Peat land	53	11	30	6	31	21	33	15	46	4	39	12
Open-cast mine*	57	18	14	11	32	7	28	33	54	12	15	19
Volcano	56	31	1	12	44	46	4	6	42	50	4	4
Water fall **	42	19	2	38	26	64	10	0	35	42	12	12
Alvar	85	7	8	0	69	6	21	4	77	0	19	4
Fjord	84	6	6	4	61	34	4	1	65	27	4	4
Karst	79	13	7	1	57	30	2	0	69	15	12	4
Glacier	58	25	7	9	57	23	13	7	50	39	8	4
Esker	85	6	6	3	66	9	22	3	77	0	19	4
Lake *	33	13	6	48	22	7	71	0	23	15	42	19
Reforested quarry	76	7	14	3	56	8	32	8	58	8	31	4
Cave **	45	26	3	26	33	50	15	2	35	50	8	0
Meteor crater	56	30	3	12	33	56	8	3	50	39	4	7

* Significant difference between groups at $p < 0.05$, ** significant at $p < 0.01$.

Table 6. Mean scores of the evaluation of selected landscape elements and environmental conditions in the neighbourhood of the schools: score 1 was the most positive appreciation, score 7 the most negative one. Settlement type: U – urban, R – rural. SD – standard deviation.

Place	Ahtme (U)	Jõhvi (U)	Kiviõli (U)	Kohtla-Järve (U)	Iisaku (R)	Lüganuse (R)	Toila (R)	MEAN	SD
Roads	5.1	5.1	5.2	5.4	4.4	5.9	5.7	5.3	0.4
Pollution **	5.6	5.1	5.1	5.7	4.3	5.1	4.3	5.1	0.6
Housing *	4.7	4.4	5.1	5.0	4.6	5.9	5.4	5.0	0.5
Nature **	5.4	5.0	4.8	5.5	4.9	5.1	4.1	5.0	0.6
Industry *	5.0	4.9	4.7	4.8	3.4	3.7	4.1	4.4	0.8
Recreation **	4.4	4.1	5.2	4.2	2.1	5.4	4.5	4.3	1.1
Living **	4.9	4.0	4.2	4.5	3.2	2.9	3.2	3.8	0.5
Environment **	4.4	3.3	3.1	3.7	3.3	3.7	3.4	3.6	0.5
Landscape **	4.1	3.4	3.9	4.0	1.8	3.5	3.0	3.4	0.5
MEAN	4.8	4.4	4.6	4.8	3.6	4.6	4.2	4.4	
SD	0.5	0.6	0.6	0.6	1.0	1.0	0.8	0.6	

* Significant difference between places at $p < 0.05$, ** significant at $p < 0.01$.

Table 7. Mean appreciation scores by language groups for selected landscape elements and environmental conditions in the neighbourhood of the schools: score 1 was the most positive appreciation, score 7 the most negative one. 1 – housing, 2 – living, 3 – roads, 4 – recreation, 5 – industry, 6 – landscape, 7 – nature, 8 – environment and 9 – pollution.

Language group	1 **	2 **	3 *	4 *	5 **	6 **	7 **	8	9 *
Russian	5.0	5.5	4.7	5.3	5.1	4.7	4.8	3.7	3.9
Estonian	5.6	5.0	5.2	5.0	3.9	3.7	3.2	3.7	3.3

* Significant difference between groups at $p < 0.05$, ** significant at $p < 0.01$.

Table 8. Agreement with statements between language groups and locations (urban and rural) on a 5-point scale: -2 – completely disagree, -1 – disagree, 0 – neutral, +1 – agree and +2 – completely agree. Only significant p-levels are given.

No.	Statement	Median score for Russians/Estonians (p-level)	Median score for urban/rural (p-level)
1	Economy will improve when more oil-shale is extracted	0 / 0	0 / -1 (0.033)
2	No problems living together (Estonians and Russians)	-1 / -1	-1 / -1
3	There is much racism	-1 / +1	+1 / +2
4	There is a lot of crime	+1 / -2	0 / 0 (0.011)
5	It is nice living here	0 / 0	+1 / +1
6	More agriculture and less industry is needed	+1 / +1 (0.041)	+2 / +1
7	More tourism is needed	+1 / +2	0 / +1
8	More nature reserves are needed	+1 / +1	+1 / +1
9	Something must be done about the landscape pollution	+2 / +1	+2 / +2
10	More attention should be given to waste recycling	+2 / +2 (0.040)	0 / -2
11	The European Union must invest to improve the landscape	-2 / -1	-2 / 0

Agreement with statements on problems in the area

The students were asked to give their agreement on eleven problems the county has to face. Russian- and Estonian-speaking respondents were only disagreeing on one matter – whether crime is a problem or not (table 8). Problematics around oil shale had probably not played a big role in their lives, although both agreed upon that less industry was needed, that something should be done with pollution and that softer values such as tourism and nature conservation ought to prevail. What both language groups would not like is the interference from the European Union. But the environment they live in leaves them indifferent – "it is nice living here". On social account it seems that there are some problems with living together with another ethnic group.

For the rural population the further excavating of oil shale is of course not welcome because of drying out of the wells, ruining water cycles of fields and berry- and mushroom-picking forest, land collapses etc. – making the land they live from often unusable. The divergences also emerge in waste recycling (in countryside it is done anyhow: jars are refilled with home-made jams, everything burnable

is burnt, food left-overs given to animals) and in subsidies from European Union that rural part of the population is not so eager to oppose. It seems that crime has not been regarded as a problem in towns or in rural places, which is peculiar, since Russian-speaking respondents saw it as an issue when compared to Estonians. All the rest of the agreements with statements about problems seem to coincide with the distinction between Russian- and Estonian-speaking respondents.

Places to visit with a foreign friend

The respondents were given a list of 28 places or features among which they could select to show to and visit with a foreign friend. The places included natural landscapes, recreational areas, cultural features, towns and industrial sites. The more natural, tourist and cultural sites (table 9: places 1–12) were the most preferred to be visited by both language groups. Significant differences in the rating between the language groups were found for the beaches (places 2, 3 and 8) and nunnery and castles (7, 9–11) and the local town park. Other local features proved unlikely to be visited, least of all the local cemetery (14). Of other places (16–28), only the city centre of Jõhvi was mentioned. The city centres of Kohtla-Järve and Sillamäe were least of all preferred by both language groups. Of all the industrial sites only the spoil hills near old mining sites marked a significant difference between the two main language groups. Significant differences were found between language groups and urban and rural places even when the median category was the same, which indicates that there was a lot of variation in opinion within the groups. The overall conclusion is that human induced landscapes of oil shale would not be considered worth presenting to a foreign friend.

Discussion and conclusions

On the delicate matter of how much the perceptions of declining industrial landscape differ between Russian- and Estonian-speaking schoolchildren of Ida-Viru County, several doubts occur: methodological issues, themes of representation etc. The following points of discussion will help to evaluate the meaning and value of the results although not to solve all the shortcomings. They have to be kept in mind when planning future research projects on the matter.

There are three major concerns when dealing with this kind of questionnaires. First of all, the previous experiences of the authors have shown that the so-called white sheet method does not give enough material for research. Thus we have to limit ourselves to pre-set questions that do not necessarily open up the complexity of the value formulation process and reasons behind it (see Coeterier 1987). In our case, things left unsaid are as important as strong statements about likes and dislikes.

Secondly, the age of respondents of 16–17 years was preferred to younger age groups because their memory would reach back to the beginning of independence period with no hegemonic discourse and was thus rife with identity contestations. Still, teenagers have their own individual and historical-cultural experiences (see Tuan 1974: 12, 56), but landscapes have not turned into taskscapes (see Coeterier 1987; Ingold 2000) yet. Nevertheless, as most of the respondents are at least second generation living in the area and as childhood landscapes have great influence on later landscape evaluation, we can consider them as being insiders (Relph 1986) showing involvement. They have not seen the pre-industrial landscapes and therefore cannot express comparative judgements with former formations. It is our task to read the inherent influence of historical and cultural aspects out of their answers.

Thirdly, one of the major concerns in preference studies is that the notion of landscape is different for lay people and scientists/experts. In everyday language "landscape" denotes an appearance or arrangement of an area (mainly of natural origin), e.g. forested or undulating. It involves a scenic component and as such one cannot move around in the landscape – then landscape falls apart to be a set of landscape elements and objects. And one can definitely not find a *land*scape in urban areas. The environment in everyday language is associated with environmental problems or natural degradation; only lately the understandings of "atmosphere" and "milieu" have set in. These peculiarities have to be taken into consideration when interpreting the results filled in by Russian and Estonian lay persons and then translated by experts into English.

Methodological issues

Comparing two language groups involves translating and therefore possible mistakes in results, e.g. the number of answers "I do not know". It is also hard to believe that 77 percent of the Russian schoolchildren never had heard of an ash-hill,

Table 9. Places perceived to be worthwhile for visiting with a foreign friend: 1 – certainly, 2 – probably, 3 – unlikely and 4 – certainly not (share of the answers, percentage of unanswered is not shown, but overall was 0.5%). Medians (for significant differences) for both language groups and the location of the schools (urban or rural).

Places		1	2	3	4	Median Russian	Median Estonian	Median Urban	Median Rural
1	Oru park in Toila	79	16	4	1				
2	Beach of Toila	70	23	5	1	1	1*		
3	Northern beaches of Peipsi lake	66	29	4	1	1	1**		
4	Cliff of Ontika and Valaste waterfall	74	21	2	2				
5	Parks and fortress in Narva	65	28	4	3				
6	Lakes of Kurtna (kames)	47	36	15	2				
7	Cloister of Kuremäe	65	23	8	4	1	1**		
8	Beach of Narva-Jõesuu	45	34	17	4	1	2*		
9	Purtse castle	35	35	19	11	2	1**		
10	Castle and park of Mäetaguse	19	35	32	13	3	2**		
11	Castles such as Maidla, Aa, Saka, Ontika, Illuka	40	35	17	7	2	2**		
12	Local town park	41	35	18	5		2**		
13	Local church	21	42	26	11			2	2*
14	Local cemetery	10	9	24	56	4	4*	4	3-4**
15	Local museum	23	37	27	12	2	2*	2	2*
16	Oil-shale museum	14	33	38	14				
17	Mining museum in Kohtla	14	30	36	19				
18	City centre of Jõhvi	41	34	18	7			2	3*
19	City centre of Kohtla-Järve	25	30	24	21	2	3**		
20	City centre of Sillamäe	7	15	38	39	3	4*		
21	Woods and peat land of Alutaguse	13	26	39	21	3	2**	23	2*
22	Karst landscape in Uhaku	9	32	37	21	3	2**		
23	Reforested areas and old quarries	8	17	44	30				
24	Open-cast mine	9	24	40	26				
25	Ash-hill in Kiviõli	19	21	36	24				
26	Ash-hills near Kohtla-Järve	7	20	43	29				
27	Spoil hills near old mining sites	9	22	38	31	3	3*		
28	Ash-plateau near power plant of Narva	5	12	36	47				
	PERCENTAGE	31	27	25	17				

* Significant difference between groups at $p < 0.05$, ** significant at $p < 0.01$.

which is a common and characteristic element in the landscape of Ida-Viru County. Some of the Russian-written answers indicated some bias: the very negative appreciations of some landscape features may be also caused by a bad selection of words carrying stronger connotations.

Another language issue emerges: the use of scientific jargon to describe landscape and the environment, e.g. not everybody might remember what an esker is. The same goes for different terms connected with mining and industrial processing vocabulary.

Looking back to the formulation of questions we realize that there were some inconsistencies. Although we had thought to move from more general aspects to local ones, we did not specify if the selected landscape features were to be found in Ida-Viru County, Estonia or whole wide world when asking about the knowledge and appreciation of them. What is considered to be common or spectacular may very much depend on scale. The rating scales used in questions five and six were different but could have been similar. In the evaluation of the immediate environment same score might mean different things. For instance when roads, pollution, housing and nature scored all a slight negative trend, it indicated that roads and housing are in poor condition, there is a problem of pollution and not enough nature around. Yet these inconsistencies leave room for a variety of perceptions.

Differences in perception caused by different practices

Many of the differences in understanding landscapes maybe cause by differing schooling and everyday practices of the two language groups. In recent years, more and more Russian-speakers send their children to Estonian-speaking schools, especially those people who have made up their mind to tie their future with Estonia or Western Europe. The only problem with it is that Estonians start to speak Russian and not *vice versa*. Maybe common schooling would also give more similar results in landscape perception – involving school excursions to see meteor craters and karst, etc.

Changes in labour market have also taken place. In 2001, 15 percent of labour force was still unemployed and probably engaged in semi-illegal jobs when not busy with drinking. The situation has improved since, being still the worst in Estonia – 8.5 percent in autumn of 2006.

Aside from essential social factors the time aspect seems to be of an importance. We consider the schoolchildren as at least second generation in Ida-Viru County but we are not sure whether this generation whose parents grew up in Estonia proves to be different from ethnic Estonians. Definitely the spatial segregation plays its role – urbanites behave differently than country folk, but not all of the Russian-speaking population comes from towns. Maybe the cultural background still plays a role determining different habits, behaviour patterns, gaze and perception in the landscape.

Overall, it seems that Russian-speaking respondents travel less (outside of town) for many common landscape features are unknown to them. On the other hand, they enjoy recreation opportunities by beaches and lakes e.g. and probably would take their foreign guests there. Yet they strongly dislike forests, water falls and lakes – and there is no good reason for explaining it.

The general assessment to the immediate surroundings tends to be more negative on Russian-speaking respondents. Yet the statement concerning that it is nice to live where they do left both language groups indifferent, whereas landscape and the environment scored high – landscapes surrounding home are still close to heart (Tuan 1974). The rural places have the most positive appreciation but also have a large variation amongst them. One of the factors explaining this situation could be that rural places are lacking heavy industry and their ethnic composition is more homogeneous. Most of the schoolchildren are quite suspicious of European Union subsidies – we wonder how this may have changed over time. But all of the questions cannot be reduced to questions of time and culture – some personal preferences will always cause some variation (Fines 1968; Craik 1972; Tuan 1974; Tips and Savasdisara 1986; Coeterier 1987).

Representations of industrial heritage

Alongside environmental determinism we also have to take into consideration the question of media determinism. Youngsters are easily influenced by the media which very often depict Ida-Viru County as troublesome. This may shed a light on why in evaluation of the immediate environment extremely negative scores dominated with 20 percent over the positive ones (8 %). In this outlook it is interesting to see where the schoolchildren would take their foreign guest – what they perceived as worth showing: Beautiful natural, tourist-recreational and cultural places, never stopping to ponder that what they regarded as ugly or com-

mon might actually be unique and representative and as such interesting to see for outsiders.

Representations can be also verbal – parents telling the stories of "good old times". This may explain the Estonian distaste for ash-hills and open-cast mines as they are perceived to be the quintessence of the Soviet formation, although oil shale mining started before the formation change. Estonians tend to see marred landscapes and Russians see signs of progress.

Whether wanted or not the appearance of the landscape has changed through human action – and as such forms a monument to the lives of several thousands people. With the industrial decline and all that goes along with it, representations have eventually turned upside down: From progress to catastrophe, with the same probably happening to the perceptions of landscapes. Besides ecological rehabilitation, some landmarks would deserve preservation. First steps along this path have been taken, hopefully bringing also more tourists into the area.

Surprisingly, there is not much research done on how people perceive mining and post-mining landscapes. The focus of the research in industrial landscapes has been on how to restore the landscape in an ecologically or environmentally sound way, e.g. in Lusatia, Germany (Bungart *et al*. 2000; Wiegleb and Felinks 2001). Others, like Podmore (1998) have studied the rehabilitation of inner city industrial landscapes. There has been research conducted in Sweden on how industrial areas have been designed during the 20th century (Nilsson 1992) and on the symbolism of Swedish modern landscapes (Sörlin 1999). Still, Luud *et al*. (2003) have attempted to assess the same Ida-Viru county's industrial landscape from the point of view of the "protection of cultural landscapes from damages".

To summarise, one can conclude that landscape appreciation differs between the two ethnic groups, and both groups have their own strategies of spatial behaviour and ability to read the landscape. The reasons for the different behaviours however remain a subject for further studies.

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