

EVALUATION OF LIVONIAN VILLAGE LANDSCAPES IN LATVIA

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Abstract. Latvian landscape identity is related to many territories, but as far as the coastal landscapes are concerned, they have some special features. It is important to note that due to storms and coastal erosion living conditions here are frustrating. However the coastal area has some positive magnetism, which is often related to unusual natural conditions, a special aura and unique feelings, because the coastal area is unique on the Latvian scale. One of such places is the Livonian coast. For detailed evaluation of eleven Livonian villages, the method of analysis of the existing situation has been chosen, which also includes the evaluation of the village yard, buildings and infrastructure. The quality and condition evaluation method for rural villages with low level of development by F. G. L. Gremliza (1965) has been also applied as a basis for this evaluation method. Then, according to the results obtained, the villages have been compared and classified. In addition to this, using the evaluation of each rural yard it is possible to mark valuable structures and typical rural yards in the schematic model of the Livonian coast.

Keywords: coastal, coastal villages, landscape evaluation, Livonian villages, cultural landscape.

Introduction

The coastal scenery of the Baltic Sea and the Gulf of Riga, as well as many by-water landscapes – river banks and lake shores – from ancient times have attracted people as a potential living space that provides its inhabitants with necessary resources and a visually appealing landscape. Due to rapid technological progress, nowadays architectural, technological and visual solutions and approaches to the Latvian landscape management have been optimized. At the same time, because of such intense search for optimal solutions, standardized architecture, almost identical construction and management techniques are used in many parts of Europe displacing the traditional solutions, and as a result landscape identity is often lost. The Baltic Sea is an integral part of Latvia's national identity, so these landscapes with all their bigger and smaller towns, protected areas and coastline that currently is in an ongoing development process are like our business card worldwide. In Latvia, coastal municipalities and towns are home to 989.5 thousand inhabitants, representing 44% of Latvia's population. 10% of them live in regions and 90% in urban areas (data of 2010). 77 villages and 8 towns are situated on the coast (Piekraustes telpiskās... 2011). It clearly demonstrates that the coastline is an important and integral part of Latvia's landscape; it is the place of residence for many Latvian inhabitants, as well as a place for recreation. A large part of the population is interested in the coastal landscape transformation processes. The European Environment Agency draws the public

attention to changes in all European coastal territories, such as degradation, increase in built-up and artificial territories (Eiropas piekrastes... 2006). Latvia currently is in a similar situation. Use, planning and management of the coastal territory in Latvia have not yet been duly organized and is mostly based on prohibitions. Researches on the situation in Latvia expose shortcomings of planning documentation precluding the possibility to take into consideration the actual diversity of coastal situations and hindering coastal development, which is often associated with the recreation function that requires sustainable development modelling. We need to introduce changes both in legislation and at all levels of planning and development, which is an ongoing process. The expected final result is a sustainable management plan developed for each territory on a case-by-case basis, taking into account the changeability and sensitivity of the coastal territory (Čepāne 2002; Pidzulis 2010; Briņķis, Strautmanis, Bērziņš 2009; Hohlovska, Trusiņš 2010).

Coastal landscapes are very fragile and exposed to degrading impact of human activities. The landscape's initial value directly depends on the intensity of its use (Melluma 2002). Human activities on the coastline have been affected by various historical, political and social aspects. Over an extensive period of time, military units of the Soviet Army were stationed on the coastline, and this fact resulted in changed status of the territory and major limitations of economic activity. Life on the coastline is associated with

some specific circumstances and economic activities, since not all coastal areas are suitable for agriculture. Population density in many places is relatively low due to the fact that wide forests on sandy soils are not suitable for agriculture and currently have the status of protected areas. The population is concentrated mostly around major towns and in the areas of relatively fertile soils. Historically, coastal villages were established as fishermen's villages, where main economic activities were not associated with agriculture (Latvijas zeme... 1937). Unlike in other parts of Latvia, the coastline is characterized by an interesting phenomenon – its inhabitants often live in villages. Of course, living in villages is a traditional way of life for Livs, but Latvians on the coastline also lived together (Fig. 1). Times change, and due to the changed conditions of life and occupation many villages were dissolved because people preferred living in farmsteads. On the coastline, cluster type villages are typical. Opposite to the village, on the shore, fishing accessory huts and stakes for drying fishing nets are located. This group of huts and stakes is called “valgums” or “sedums”. The villages could also have a trading place for weekly markets (Latvijas zeme... 1937).

The coastline has always been a controversial target object: on the one hand, it is a natural treasure that people are trying to protect and preserve, on the other, it is an attractive recreation area. Researches show that 63% of Europeans prefer to spend their vacation on the seaside or seashore. Therefore, the coastal territory is attractive to investors, who are interested in development of a variety of large-scale recreational facilities (Hohlovska, Trusiņš 2010).

The Latvian Association of Rural Tourism carried out a survey in the coastal zone of Slītere National Park. In 8 villages 157 buildings (residential and household) were surveyed, 95.8% of them were wooden buildings and 4.2% were stone or plastered ones (Slīteres nacionālais...). Although the villages surveyed during the aforementioned research are located on a wider area and buildings without

historical information were not covered by the survey, the obtained parameters in general may be considered as a representative (historical) feature for this coastal region.

The purpose of this article is to evaluate the Livonian villages, in order to understand the amount of preserved traditional architecture and landscape elements and their sets, their infrastructure, how powerful and strong is the traditional landscape identity of these villages today, and, finally, the amount of cultural and historical items saved up till nowadays.

Data and Methods Used

The surveyed area, known as the Livonian coast, is located on the North-Western part of the territory of Latvia on the coast of the Baltic Sea and is an about 60 km long and 4 km wide zone of the coastal territory. In ancient times, the area was inhabited by Livs – a Baltic Finno-Ugrian tribe that lived in the territory of Latvia. The Livonian coast was the last place after the 19th century, where their concentrated live settlements still remained. Therefore in 1991 the status of a special protected cultural-historical territory ‘Live Coast’ was granted.

Today, the major part of Liv fishing villages, ranging from Sīkrags and ending with Kolka are included in the Slītere National Park. At the beginning of the 20th century, they belonged to two manors: Pope and Dundaga. During the given research 11 Livonian villages were surveyed and evaluated (in brackets the Liv names of the villages are given): Vaide (Vaid), Saunags (Sanag), Pitrags (Pitrog), Košrags (Koštrog), Mazirbe (Irē), Sīkrags (Sīkrog), Jaunciems (Ūžkilā), Lielirbe (Īra), Miķeļtornis (Pizā), Lūžņa (Lūž), Oviši (Paṭikmō) (Zirnīte, 2011) (Figs 2 and 3).

A traditional coastal building unit was a fisherman's homestead composed of a cluster of several structures, namely, a dwelling house, barn, fish cellar, pigsty, net hut, fish smoking shed, cattle shed, bathhouse, root cellar and sum-



Fig. 1. Historical map of the Livonian coast, 1772 (Geographica Gubernii...)

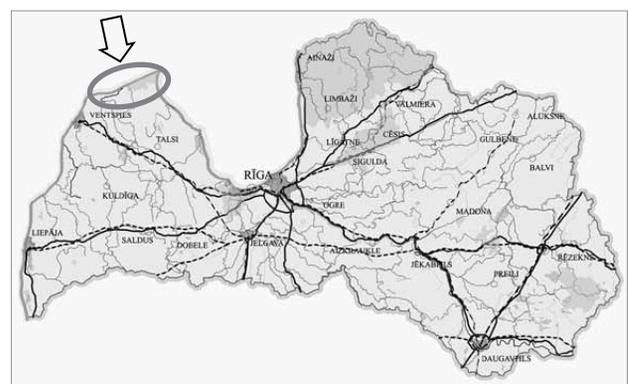


Fig. 2. Location of the researched object in the territory of Latvia

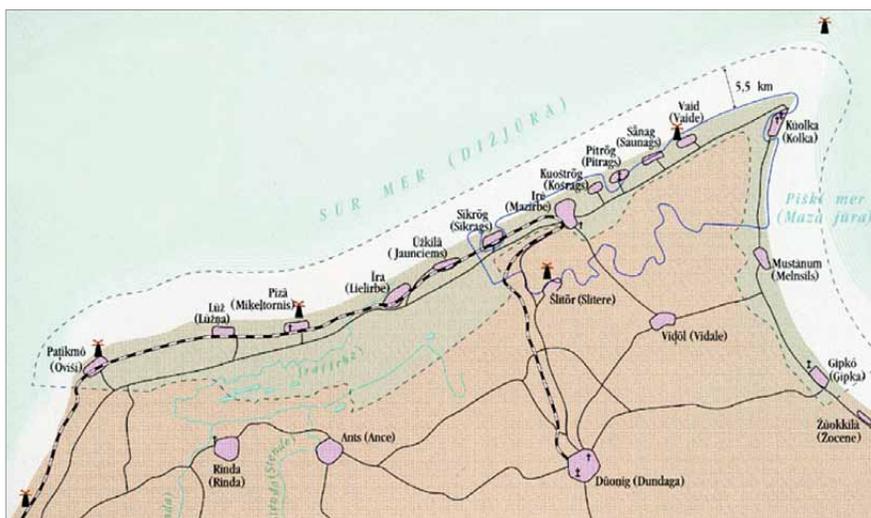


Fig. 3. Livonian villages

mer kitchen. A characteristic feature is that on the Vidzeme coast fishermen lived in farmsteads, but fishermen on the Kurzeme coast preferred life in small villages. These coastal fishing villages are a special part of coastal landscape identity and Latvia's national heritage objects. The typical planning principle for Dienvidkurzeme and Vidzeme farmsteads is a two-yard layout that is divided into "clean" yard with a barn and "dirty" yard with cattle shed, stable and shed. In the "clean" yard trees, shrubs and colorful flowers were planted, which were connected to the fruit and bee garden (Piekraštes apbūves... 2011).

Until the 19th century, dwelling houses were built of spruce or pine logs. Both living and household buildings were single-storey structures. The most popular were horizontal log structures or vertical framework structures with horizontal log filling. In order to protect exterior walls against weather conditions, vertical planking or half-beam lining was used. In the vicinity of lakes, reed lining was also used. Foundations and ovens were made of boulders. Gabled or multi-pitched roofs were covered with rye straw, reeds or shingles, in rare cases with boards. In the 19th century, when economic freedom was obtained, stone buildings emerged, but wooden architecture traditions still remained strong. In the second half of the 19th century, boulders were used for construction of cattle sheds and stables, residential buildings were built of bricks, while timber was used mostly for grain barns. Liv fishermen used boats sawn in two for construction of smokehouses or summer kitchens or the so-called "little buildings". Such buildings were often used as storerooms or net huts and have become a coastal identification mark. On the shore, Kurzeme fishermen formed the so-called "sedums" consisting of boats, net and fishing gear huts and stakes for drying fishing nets (Fig. 4) (Piekraštes apbūves... 2011).

The aesthetical analysis of the villages was carried out in accordance with F. G. L. Gremliza method for measuring the quality of village conditions during the period from July, 2012, until November, 2012, and included several steps: historical-cultural analysis of history and architectural traditions of fishing villages; visual field survey, and data processing in the end with a view to clarify the current status and quality of Livonian villages. The results were processed by MS Excel and manually.

For detailed evaluation of the current status of the villages, the current status analysis of whole village homesteads, buildings and infrastructure was carried out. The basis for the said evaluation was F. G. L. Gremliza's quality and condition evaluation method of least developed rural villages described in 1965 (Gremliza 1965). The aim of the method is to process qualitative and quantitative information about the villages. Historically, this method was used to obtain information about the sanitary situation in small villages, but the criteria used for evaluation are suitable for attainment of the objectives of this article, i.e., to evaluate villages (buildings, homesteads and infrastructure).

Maximum number of village homesteads was surveyed (with the exception of the inaccessible and not visible from distance private homesteads). Each homestead was evaluated in accordance with the requirements of the evaluation categories. Scoring scale was created in accordance with the coastal building guidelines developed by professionals (Piekraštes apbūves... 2011) and according to the typical Kurzeme coastal homestead features (Fig. 5). 17 criteria were identified estimating each criterion in points from 0 to 2 points maximum and subdivided into 3 groups:



Fig. 4. A typical fishermen's homestead in 1912 (Baķu homestead. Mēlnsils. Photo: Vilho Setele)



Fig. 5. A contemporary homestead on the Livonian coast (Photo: Ilze Draudiņa, 2012)

Total impression of the homestead:

1. *Building intensity* – mutual congestion. Evaluation of yard space, the number of buildings and auxiliary buildings on the site, as well as whether their spacing corresponds to a typical Kurzeme homestead.

2. *Visual impression of the homestead* – evaluation of the total impression. The tidiness – visual status of the buildings and homestead has been evaluated.

3. Depreciation – the existing technical condition of the building complex has been evaluated, including **the main construction materials and separate elements** that characterize the visual appearance corresponding to historical situation.

It is impossible to evaluate the foundations of the buildings, because most of the buildings are privately owned and not all of them can be examined in detail. As well as this factor is insignificant for evaluation of aesthetic quality or structure of the villages.

4. *Wall materials* play a significant role in evaluation of the buildings. This aspect is included in two evaluation criteria for separate evaluations, that of a residential building and household building, identifying specific wall construction materials. The criteria were established taking into account the historical development of wall materials used and the quality of the materials. Evaluation criteria for the building walls are presented by gradation from the highest to the lowest rate: historical wooden buildings – these buildings are rated the highest, taking into account that this type of construction is the basis for further development of the construction. To this category belong logs, wood strips, etc.; historical stone buildings – in this category buildings are included with visible brick exterior, no matter what is the historical construction of the walls (possibly based on a wooden building, which was lined with bricks at the beginning of the 20th century); historical buildings lined with lime plaster or wooden boards; newly built wooden buildings,

the construction of which complies with historical principles; newly built stone buildings, the construction of which complies with historical principles; historical buildings lined with bitumen roll materials; other wall materials.

5. As previously mentioned, the *household buildings' wall material* is evaluated according to separate criteria. The wall materials of household buildings are evaluated according to the following criteria: historical wooden household buildings – built of round logs, etc.; historical household buildings – built of boulders as well as wooden structures with planking; historical household buildings lined with lime plaster or wooden boards; newly built wooden household buildings, the construction of which complies with historical principles; newly built stone household buildings, the construction of which complies with historical principles; historical buildings lined with bitumen roll materials; other wall materials.

6. *Verandas, roof extensions and porches*. Although originally the buildings were rectangular, in the course of time they were complemented with roof extensions and verandas. Roof extensions emerged in the beginning of the 20th century, when attic floors were adjusted as a living space (Slīteres nacionālā...). The first porches were built in the 19th century. Established evaluation criteria: the same evaluation criteria are applied to both historical buildings without any verandas, roof extensions and porches and to historical buildings with such elements; newly built buildings with verandas, roof extensions and porches, the construction of which complies with historical principles; newly built buildings that do not comply with these principles are not scored in accordance with this criterion.

7. *Roofs*. Roofs of buildings in the Livonian coast villages are evaluated in accordance with two aspects: the form of the roof and its covering. Evaluation according to the form of the roof is made by two possible options for evaluation of residential and household buildings: residential building roof corresponds

to general historical principles; residential building roof does not correspond to general historical principles; household building roof corresponds to general historical principles; household building roof does not correspond to general historical principles. Evaluation criteria of the roof covering (from higher to lower): shingle roof – historically the oldest roof material; rubble or sawn shingle roof; tin roofing – aesthetically improved and the most durable roof covering used in the Soviet period; visually appealing, high quality, durable modern roof covering, such as bitumen roof shingles, clay tiles, etc.; asphalted felt covering – historical, but of low aesthetic quality and with a relatively short life-time; modern roof covering with rather low aesthetic quality such as wavy bitumen plates.

8. *Windows*. Historically, buildings were built without windows, and after completion of construction a small window was cut in the wall. When the use of glass for windows emerged, the buildings were equipped with large windows. In residential buildings, windows were placed vertically, but the in household buildings the windows were often arranged horizontally (Slīteres nacionālā...). Traditional residential building windows are square or rectangular. Windows with six panes prevail, but there are also windows with three or four panes. Evaluation criteria: windows corresponding to historical building (materials, panes) with shutters; windows corresponding to historical building (materials, panes) without shutters; windows that don't correspond to historical building.

9. *Building entrance door* – this value has not been evaluated because the doors have no common historical features that could affect the evaluation of buildings.

10. *Bathroom*. Historically, a bathroom was an important element for any old homestead. Evaluation criteria: historical bathroom, modern bathroom, no bathroom.

11. *Fencing*. Fencing is an important element for the Livonian coast homesteads. Historically, different types of wooden fences were used, and in rare cases (mostly around the churches) fences were built from boulders. Wooden fences have a variety of options historically adopted in the region. Evaluation criteria: wooden fence corresponding to the coastal village fencing types; stone fence corresponding to the coastal village fencing types; fence that does not correspond to the coastal village fencing types; no fencing.

12. *Outdoor hearth* – is there a visible outdoor hearth or a fish smoking-shed, its conformity with traditional format. Established criteria: the homestead has both a fish smoking-shed and an outdoor hearth; the homestead has an outdoor hearth; the homestead has a fish smoking-shed; the homestead has none of these elements.

13. *A water resource (well)* – a well is an appropriate and important element for a Livonian coast fishing village. Evaluation criteria: the homestead has a historical well with a wooden pole; the homestead has a historical well with a manual winch; the homestead has a modern well; the homestead has no well.

14. *Facilities and wastewater systems* – although some homesteads have visible outdoor facilities, it is impossible to evaluate according to this criterion because most of the buildings are privately owned and not all of them can be examined in detail. As well as this factor is insignificant for evaluation of aesthetic quality or structure of the villages.

15. *Keeping of animals* – observations on the presence of animals in a homestead. Keeping livestock, hens, etc.

Infrastructure:

16. *The quality of the access road and accessibility of the building*. The criterion is comparative: a high quality access road, a satisfactory quality access road, and a poor quality access road.

17. *The distance to public objects or a place of rendering of services* (medical staff, pharmacy, medical office, church, shop, cafe, school, guest house, culture center and public transport) – these values are evaluated by minutes spent in order to reach the object.

Although these criteria affect the entire village as a whole, in evaluation of them each homestead is provided with unbiased information entry, as well as mathematical calculation is applied.

Evaluation according to each of the above-mentioned criteria is provided by using point scoring. Scores assigned to each homestead are summed. Using average values for each homestead and formulas 1, 2 and 3, the value for the entire village is calculated (Gremliza 1965). Calculation of this kind allows for precise dividing of categories, because a deviance is taken into account.

$$M' = \frac{S(fX)}{N}, \quad (1)$$

where M' – average value of the village, f – option incidence, X – homestead (a particular one) sum score, $S(fX)$ – multiplication f by X (sum of all events), N – observations incidence.

$$S' = \frac{\sqrt{S/f(X - M')^2}}{N - 1}, \quad (2)$$

where S' – standard deviation, f – option incidence, M' – average value of the village, X – homestead (a particular one) sum score, N – observations incidence.

For calculation of the value of the entire village, the following final formula is used:

$$z = \left(\frac{M' - M}{s} \times 20 \right) + 100, \quad (3)$$

where z – value of the village, M' – average value of the village, M – average value for the entire territory (it is the common value for all Liv coast territory), s – standard deviation for the value of M . The other elements are defined as constants according to the Gremliza's method for measuring the quality of village conditions (Gremliza 1965).

With the results obtained, it is possible to compare and classify the villages. By using each homestead evaluation it is possible to record valuable buildings and typical Livonian coast fishermen's village buildings into a schematic model.

According to Gremliza's instructions, it is possible to group the villages using their value "z" by categories from "minus 4" to "plus 4".

Results and Discussion

During the initial evaluation of aesthetic status of a village, the status of all homesteads with residential homes, temporary buildings and guest houses was evaluated. In order to obtain more exact results, interim structures, such as residential wagons and huts, were excluded from the aesthetic quality evaluation. Although these temporary structures have a significant impact on the aesthetic quality of the village, they are not considered to be long-term elements of the visual image of the village. Schools, churches, stores, former military structures and garages were not included into the evaluation.

According to the Gremliza's method, 9 categories are defined, but even more exact result can be obtained by consolidation of these categories into 4 groups.

After the data processing, the initial average value "M" for all Livonian villages was 14.47, but the specified average value was 15.51.

Table 1. Ranking of villages depending on the value "z" in accordance with Gremliza

Average value "z" of the village (scores)	Category
51–60	Minus 4
61–70	Minus 3
71–80	Minus 2
81–90	Minus 1
91–110	Neutral
111–120	Plus 1
121–130	Plus 2
131–140	Plus 3
141 <...	Plus 4

Table 2. Distribution of groups after consolidation of Gremliza's categories

Distribution of consolidated groups	Average value "z" of the village (scores)	Categories under Gremliza consolidated into one group
Group–2	$51 \geq 71$	Minus 4; Minus 3
Group–1	$71 \geq 91$	Minus 2, Minus 1
Group+1	$91 \geq 140$	Neutral, Plus1, Plus2, Plus3
Group+2	$140 < \dots$	Plus4 and villages with a higher value

Table 3. Calculated values for evaluation of the villages in accordance with Gremliza

Name of the village	M' (scores)	S' (scores)	Z (scores)	Group (category under Gremliza)	Specified M' (scores)	Specified S' (scores)	Specified Z (scores)	Specified group (category under Gremliza)
Vaide	15.58	0.90	124.78	Group+1(+2)	16.04	0.78	113.59	Group+1(+1)
Saunags	16.33	0.84	144.29	Group+2(+4)	16.33	0.84	119.52	Group+1(+1)
Pitrags	16.1	0.89	154.83	Group+2(+4)	16.91	0.89	131.59	Group+1(+3)
Košrags	16.46	1.24	132.09	Group+1(+3)	18.37	0.91	162.86	Group+2(+4)
Mazirbe	16.52	0.62	166.13	Group+2(+4)	16.95	0.56	151.43	Group+2(+4)
Sikrags	15.78	0.71	136.9	Group+1(+3)	15.78	0.71	107.60	Group+1(0)
Jaunciems	11.38	3.66	83.11	Group–1(–1)	14.00	3.08	90.19	Group–1(–1)
Lielirbe	12.50	2.26	82.57	Group–1(–1)	14.05	1.79	83.69	Group–1(–1)
Miķeltornis	13.29	1.18	80.00	Group–1(–2)	14.30	0.98	75.30	Group–1(–2)
Lūžņa	11.7	1.30	58.15	Group–2(–4)	12.13	1.61	58.01	Group–2(–4)
Oviši	12.75	1.92	82.08	Group–1(–1)	15.53	1.84	100.22	Group+1(0)

Group-2 – Lūžņas village was included. The village was ranked the lowest due to the several factors: the village is very small, the technical condition of the buildings is poor or does not correspond to the typical coastal buildings and the village is located far from the regional centre.

Group-1 – Jaunciems, Lielirbe, Miķeļtornis. All the villages in this group have a linear structure. In Lielirbe and Jaunciems, the number of homesteads is catastrophically low, some buildings are aesthetically obsolete, the access road is in bad condition. Although the structure of Miķeļtornis is similar to the aforementioned villages, it is much bigger. The low rating of the village of Miķeļtornis is due to the disorderly look of several buildings and their non-compliance with the typical coastal building. The village also has a large abandoned building complex that would be reconstructed and used for summer camps, etc.

Group+1 – Oviši, Sīkrags, Pītrags, Saunags, Vaide – small villages with prevailing private properties. These villages have some attractive tourism objects: camping sites, lighthouses, churches, an animal horn museum, etc. In these villages the historic buildings have survived and new buildings are under construction.

Group+2 – Košrags, Mazirbe. In these villages, several new buildings are under construction taking into consideration the typical principles of historical building as well as renovation of historical buildings. Mazirbe is a local centre with a school, shop, culture house and an intercity bus terminal. The village of Košrags has signs of strong emphasis of the Liv identity, such as posting information signs on buildings and names in the Livonian language, displaying the flags, etc.

Conclusions

The evaluation of Livonian villages in accordance with the Gremliza's method revealed that only one of the eleven villages was included in the lowest category, 3 other villages fell in the negative group, but five villages were in the neutral group with some positive features and two villages had the highest rating. Overall results demonstrated that seven villages, i.e., more than a half of all villages, had a positive rating, so it was possible to state that their landscape identity survived. Specified scoring demonstrated the true aesthetic richness of the villages and false impression of existing values formed by the temporary structures. The village with the highest ratings – Košrags – is a national monument of architecture and urbanism, its cultural and historical significance was also emphasized by the fact that Košrags was one of the six Latvia's cultural monuments that were nominated for entering on the World

Heritage List. According to the evaluation, Mazirbe is the most developed village, where the Livonian Cultural Centre is located. But the villages with the lowest ratings currently are the least developed and scarcely populated, so partly abandoned and with poor quality landscapes and many elements that look extraneous to their landscape identity.

Livonian coastal landscape potential is large, because the traditional landscape identity in many places has survived, both in architecture and homestead building traditions. Most landscape elements correspond to the coastal traditional values. For complete evaluation, the applied village evaluation method has to be combined with the landscape evaluation, as well as social questionnaires.

Acknowledgements

The work had developed within the framework of European Social Fund support for doctoral (No. 2009/0180/1DP/1.1.2.1.2/09/IPIA/VIAA/017) and master studies (2011/0020/1DP/1.1.2.1.1/09/IPIA/VIAA/011) program of Latvia University of Agriculture.

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LATVIJOS LIVONIJOS KAIMŪ KRAŠTOVAIZDŽIO VERTINIMAS

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Santrauka

Latvijas kraštovaizdžio identitetas siejasi su daugeliu teritoriju, visgi labiausiai – su pajūrio kraštu. Būtina pabrėžti, kad dėl audrų ir kranto erozijos gyvenimo sąlygos yra apsunkintos. Tačiau pajūrio kraštas turi pozityvius traukos, siejamos su neįprastomis gamtinėmis sąlygomis, ypatinga aura ir unikaliais pojūčiais, ir tampa išskirtiniu Latvijoje. Viena iš tokių vietų – Livonijos pajūris. Vienuolika Livonijos kaimų yra detalai įvertinti taikant esamos situacijos analizės metodą, pagrindinį dėmesį skiriant kaimo sodybų pastatų, kiemų ir infrastruktūros tyrimui. Šio vertinimo metodo pagrindas yra menkai išvystytų kaimų kokybės ir sąlygų vertinimo metodas, sukurtas F. G. L. Gremliza (1965). Kaimai yra lyginami ir klasifikuojami pagal gautus rezultatus. Taip pat pagal kiekvienos sodybos vertinimą galima išskirti vertingus ir tipinius elementus Livonijos pajūrio schematiškame modelyje.

Reikšminiai žodžiai: pajūris, pajūrio kaimai, kraštovaizdžio vertinimas, Livonijos kaimai, kultūrinis kraštovaizdis.