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Daugavpils Universitātē docētāju un studējošo zinātniskās konferences notiek kopš 1958. gada. Konferencēm ir starpdisciplinārs raksturs un tajās piedalās gan studējošie, gan docētāji, gan arī ievērojami zinātnieki no dažādām pasaules valstīm. Daugavpils Universitātes 62. starptautiskās zinātniskās konferences pētījumu tematika bija ļoti plaša – dabas, veselības aprūpes, humanitāro un mākslas un sociālo zinātņu jomās.

Zinātnisko rakstu krājumā ***Daugavpils Universitātes 62. starptautiskās zinātniskās konferences rakstu krājums = Proceedings of the 62nd International Scientific Conference of Daugavpils University*** apkopoti 2020. gada 28.–29. maijā konferencē prezentētie materiāli.

Daugavpils Universitātes 62. starptautiskās zinātniskās konferences rakstu krājums tiek publicēts 3 daļās: A. daļa. *Dabaszinātnes*; B. daļa. *Sociālās zinātnes*; C. daļa. *Humanitārās zinātnes*.

The annual scientific conferences at Daugavpils University have been organized since 1958. The themes of research presented at the conferences cover all spheres of life. Due to the facts that the conference was of interdisciplinary character and that its participants were students and outstanding scientists from different countries, the subjects of scientific investigations were very varied – in the domains of natural sciences, health care sciences, humanities and art, and social sciences.

The results of scientific investigations presented during the conference are collected in the collection of scientific articles ***Proceedings of the 62nd International Scientific Conference of Daugavpils University.***

Proceedings of the 62nd International Scientific Conference of Daugavpils University are published in three parts: part A. *Natural sciences*; part B. *Social Sciences*; part C. *Humanities.*

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VĒSTURE UN KULTŪRAS VĒSTURE / HISTORY AND HISTORY OF CULTURE

PECULIARITIES OF EASTER CELEBRATION TODAY: THE CASE OF LATGALE REGION

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Abstract

Peculiarities of Easter celebration today: the case of Latgale region

Key Words: *Easter, festival customs and traditions, changes, Latgale, survey*

The article provides the analysis of the situations when people observe universal Easter traditions. It is based on the data from the survey (questionnaires and interviews) conducted between January and April 2018 in Latgale. The research base consists of 467 questionnaires and 73 interview records. Works of historians, ethnographers, folklorists, as well as writers born in the region were used to provide the evidence base for the obtained facts. According to the survey data, on the one hand, the region is dominated by a positive attitude towards Easter (97.3%) as one of the most significant festivities included in the calendar (82.19%). Latgale residents who were interviewed describe themselves as active participants in Easter celebrations (94.8%) and believe that they fully observe its traditions (93.9%). In the region under analysis, egg colouring (95.3%), laying a festive table (92.1%), visiting relatives (75.8%), receiving guests (74.5%) and other traditional Easter activities are still actively practiced. On the other hand, conditions of modern life introduce adjustments to the way Easter is celebrated and the extent to which certain traditions are observed. The following aspects should particularly be mentioned: 1) noticeable reduction of the preparation stage for the festivity, 2) partial observance of church ceremonies or gradual transition away from them, 3) influence of commercialization processes, 4) enhancement of the entertainment aspect. These processes indicate that the Easter traditions are adapted to the conditions of modern globalization and a consumer society, which do not yet threaten the significance and status of the festivity itself.

Kopsavilkums

Lieldienu svinēšanas īpatnības mūsdienās: Latgales reģiona piemērs

Atslēgvārdi: *Lieldienas, svētku tradīcijas un paražas, izmaiņas, Latgale, aptauja*

Rakstā piedāvāta universālo Lieldienu tradīciju ievērošanas situācijas analīze, balstoties uz 2018. gada janvārī – aprīlī Latgalē veiktās aptaujas (anketēšanas un intervēšanas) datiem. Pētījuma bāzi veido 467 respondentu anketas un 73 interviju ieraksti. Iegūto faktu pamatojumam izmantoti vēsturnieku, etnogrāfu, folkloristu, kā arī reģionā dzimušo literātu darbi. Kā liecina aptaujas dati, no vienas puses, reģionā dominē pozitīva attieksme pret Lieldienām (97.3%) kā būtiskākiem kalendārā iekļautiem svētkiem (82.19%). Aptaujātie Latgales iedzīvotāji sevi raksturo kā aktīvus Lieldienu svinību dalībniekus (94.8%) un tic, ka viņi pilnībā ievēro to tradīcijas (93.9%). Analizējamajā reģionā līdz šim aktīvi praktizēta olu krāsošana (95.3%), svētku galda klāšana (92.1%), tuvinieku apciemošana (75.8%), ciemiņu uzņemšana (74.5%) u. c. tradicionālas Lieldienu darbības. No otras puses, mūsdienu dzīves apstākļi ievieš korekcijas Lieldienu svinību norisē un atsevišķu tradīciju ievērošanas pakāpē. Tostarp kā būtiskākās jāmin: 1) svētkiem gatavošanas posma manāma reducēšana, 2) baznīcas ceremoniju daļēja ievērošana vai pakāpeniska atteikšanās no tām, 3) komercializācijas procesu iespaids, 4) izklaides aspekta pastiprināšanās. Minētie procesi liecina par Lieldienu tradīciju pielāgošanos mūsdienu globalizācijas un patērētājsabiedrības apstākļiem, kas pagaidām pašu svētku nozīmi un statusu neapdraud.

Introduction

The public response created by a festivity helps to identify the knowledge, attitudes and cultural achievements of its members (Опарин 2015: 188), which tend to vary considerably in different periods. According to the researchers of festival culture, the form of festivities, their content, and space and time parameters most often change (Ягафова 2012: 3). In this respect, the category "content" includes festival traditions and customs which are interpreted as norms and standards of behaviour generally accepted in the culture (Алексеев, Ечевская 2014: 186; Vehrer

2017: 368). Festive traditions and customs are subject to various transformations under the influence of historical, political, and social processes: they partially or completely change, disappear, reappear, or are borrowed. In this respect, scientific literature most often highlights the risk of disintegration of the system of traditions, which is closely related to the intensity of mechanisms for transferring and receiving cultural heritage and communication between generations in a particular situation (Крылова 2015: 43). The disappearance of traditions and customs can be compensated by the formal "revival", although this process is often of a spontaneous nature. In most cases, the festivity attributive code and symbols are highlighted and, according to experts, the status of these elements at the time is often secondary. When the context of tradition implementation changes, its status also changes. As a result, this significant cultural segment is often transformed into a mass-consumption product and loses its sacred nature (Волокитина 2018: 427–428, 429).

Despite the risks mentioned above, there are rituals and traditions that remain relatively stable and sustainable under the change of epochs and circumstances, including the effects of modern globalisation and commercialisation processes. This fact gives hope for their relevance in the future periods as well (Бурменская 2009: 245; Tak 2000: 248).

The article provides the analysis of the situations when Easter traditions are observed. It is based on the data from the survey (467 questionnaires and 73 interview records) conducted between January and April 2018 in Latgale[1]. Works of historians, ethnographers, folklorists, as well as writers born in the region were used to provide the evidence base for the obtained facts.

The research tasks:

a) to determine the significance of Easter among other festivities currently celebrated in the region;
b) to identify the degree of preservation and observance of Easter traditions in modern Latgalian society;
c) note the changes taking place in the culture of festive celebration in the region, both in terms of Easter rituals and human perceptions and knowledge.

The research methods include: surveying, interviewing, qualitative and quantitative data analysis, cultural and historical, descriptive.

[1] From January-April 2018, residents of Latgale of various ages and social groups were invited to complete a questionnaire about festivities. Of the 467 people who participated in the survey, 49% are women and 51% are men; 45.7% of the respondents are Latvians, 35.9% are Russians, 5% are Poles, 3.5% are Belarusians, 2.6% are Ukrainians, 0.3% are Lithuanians, and 7% are others; 80% of the respondents are working-age persons from 15 years old and 20% are above the working age (pensioners); 11.6% of the respondents have primary education, 46.1% have secondary education and 42.3% have higher education; 40.5% of the respondents are urban residents and 59.5% are rural residents. During the processing of the database in the SPSS programme, the results of the survey were distributed according to the main stratification areas: gender, age, ethnic origin, place of residence; deviation of the sample parameters from the parameters of the population after correction did not exceed ± 5%, the interval of the distribution confidence is at the level of 0.03-0.1.

Significance of Easter and peculiarities of its celebration in Latgale

The data obtained in the framework of the survey allow us to characterise the status of Easter and the intensity of observing its traditions in the Latgalian society as relatively high nowadays, although we should take into account that this is the opinion expressed by the respondents:

- 97.3% of the total number of respondents indicate a positive attitude towards Easter. This opinion is more typical for female respondents (99.12%), different age groups (the lowest indicators are in the group of respondents aged "25–29 years" – 82.14%, in other age groups the indicators exceed 91%) and ethnic origin (Belarusians – 100%, Latvians – 98.12%, Russians – 97.01%, Poles – 91.3%) regardless of education and place of residence[2];
- 94.8% of the total number of respondents confirm that they always participate in the Easter celebrations, and it mainly refers to female respondents (97.8%), different age groups (the lowest indicators are in the groups of respondents aged "55–59 years" (87.76%) and "60–64 years" (84.21%), in other age groups the indicators exceed 90%) and ethnic origin (Poles and Belarusians – 100%, Latvians – 96.23%, Russians – 92.17%), widowed persons (100%) regardless of education, number of young children in the family, and place of residence[3].

According to the survey data, the situation with observance of Easter traditions in the region is also optimistic: 93.9% of the total number of respondents are confident that they fully observe Easter traditions. It most frequently refers to female respondents (98.25%), and, what is most significant, to the representatives of the three generations (100% in the groups of respondents aged "15–19 years", "30–34 years", "50–54 years", "60–64 years", "65–69 years" and "70+ years"). Belarusians and Ukrainians in the region (100%) are the most active supporters of Easter traditions; they are followed by Latvians (97.65%), Poles (95.65%), and Russians (85.63%). In this respect, we can distinguish Latgale residents with basic education (100%); residents who have secondary education express a more critical attitude (89.77%); respondents with higher education, in turn, comprise only 46.19%. This is a category of people who are well aware about the diversity of festive traditions in order to conclude that only a part of them is regularly observed today. It should be noted that a significant number of widowed respondents (100%) and rural residents (95.67%) marked in their questionnaires that they fully observe Easter traditions.

During the interviews, in response to a question about how well Easter traditions are preserved today, respondents' opinions differ. Part of Latgale residents are convinced that in case of Easter we cannot speak about any changes: "It's difficult to say what's new" (male, 53, Latvian,

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[2] Education: SRCC: ρ (Spearman) = - 0.003, p-value = 0.958; MWUT: p-value is higher than 0.05 in all compared positions; place of residence: SRCC: ρ (Spearman) = - 0.040, p-value = 0.417; MWUT: p-value = 0.416.

[3] Education: SRCC: ρ (Spearman) = - 0.053, p-value = 0.289; MWUT: p-value is higher than 0.05 in all compared positions; number of children in the family: SRCC: ρ (Spearman) = 0.073, p-value = 0.138; MWUT: p-value is higher than 0.05 in all compared positions; place of residence: SRCC: ρ (Spearman) = - 0.047, p-value = 0.342; MWUT: p-value = 0.341.

Daugavpils); "Well, I don't know, in my opinion, they aren't different at all" (female, 65, Russian, Rēzekne region, Silmala rural municipality, Kruķi). Others say that the festivity has been modernized: "At any festivity – Easter, Christmas, Līgo – traditions are all the same, just a little bit modernized" (female, 36, Pole, Daugavpils). A very small group of respondents assume that they practise only well-known actions: "[..] Easter is, of course, eggs, yes. So, these are the most common, most trivial, we don't do anything extraordinary" (male, 18, Pole, Daugavpils region, Demene rural municipality); "[..] At Easter there are a lot of various nuances [..], in general, I know [them]" (female, 19, Latvian, Daugavpils).

In response to the question what is really disappearing or changing, Latgale residents indicate that, first of all, the beliefs related to Easter are forgotten: "Well, I don't know, on Easter morning you should wash your face in the river, well, in this water [..]. Well, maybe it used to be more specific, now it's more like a festive dinner, a concert or other event with the family [..]" (female, 19, Latvian, Preiļi region). Secondly, the Easter preparation stage is simplified: "[..] some people even don't clean the floor or make the beds [..]" (male, 18, Pole, Daugavpils region, Demene rural municipality). Thirdly, people increasingly buy ready-made Easter attributes: "[..] don't prepare like our parents used to, they used to observe the Lent, and they needed to bake the Easter cake by themselves, well, yes, today, of course you can buy it" (female, 46, Russian, Rēzekne region, Viļāni rural municipality, Viļāni); "[..] well, the Easter cake is usually bought" (male, 46, Russian, Daugavpils region, Saliena rural municipality, Saliena).

Assessment of the Situations When Main Easter Traditions are Observed

Church Attendance

During Easter, the church was visited on a massive scale (Olupe 1992: 144): only young children, and old or ill people were allowed to stay home (Dzeņs 1971: 90; Zariņš 1975: 36). This fact is confirmed by a traditional saying "Crowded as at the church during Easter" ("Pylns kai bazneicā Leldīnas laikā") (Andžāne 1982: 231).

Today's situation is different: 62.7% of the total number of respondents in Latgale state that they regularly attend church at Easter. Most often it is done by female respondents (69.6%), middle-aged respondents ("45–49 years" – 71.91%) and representatives of the older generation ("70+ years" – 84.38%), Latvian respondents (78.4%), and Poles (69.57%); less frequently – by Russians (40.12%), respondents with higher education (74.11%), widowed persons (74%), and rural residents (70.4%) regardless of the number of young children in the family[4].

The data obtained allow us to identify the following significant trends:

[4] Number of children in the family: SRCC: ρ (Spearman) = 0.087, p-value = 0.079; MWUT: p-value is higher than 0.05 in all compared positions.

- in the region, there is a respect towards the festivity celebrated by other confessions: "We used to go! We used to go to Jēkabpils, well, I had a friend who was Russian Orthodox, she used to go to the Orthodox church, so we went so later to meet, well, we used to go, we all used to go to all festivities [..]" (female, 67, Russian, Rēzekne region, Silmala rural municipality, Kruķi);
- there are quite a lot of people who attend Easter services: "But I love it, I didn't go this year, I fell ill, I love going to church at Easter, to the night service. Lots of people there, beautiful" (female, 63, Belarusian, Daugavpils region, Nīcgale rural municipality, Kalnišķi);
- senior citizens who are regular participants in church ceremonies, are not always able to attend Easter celebrations due to their age and limited mobility: "Yes, Borisovka is a bit too far away. [..]. Well, now only for Easter, so, there will be Palm Sunday, yes, on Palm Sunday, maybe, if my son takes me [..]" (female, 84, Russian, Rēzekne region, Silmala rural municipality, Zabolotje), while this tradition is being taken over by middle-aged and partially young generations: "Who had strong grandparents who used to attend church, well, anyway, who followed religious traditions and managed to pass them on to their children. Then they all together go, there are such families…" (female, 42, Latvian, Aglona region, Šķeltova rural municipality, Šķeltova).

Observance of Lent

Lent was a strict rule which people tried to fully observe regardless of their age or physical state, as the ones who did not do it were severely criticized and considered to be sinners (Dzeņs 1971: 90). In the life of peasants, Lent had both spiritual and practical significance – it was necessary to make the rational use of food supplies in order to have enough food until the next harvest (Andžāne 1982: 233–234).

According to the survey data, this tradition loses its relevance over time: only 39.4% of the total number of respondents in Latgale say that they observe Lent every year. This tradition is most consistently observed by female respondents (44.05%), respondents who are over 70 years of age (84.38%), Latvians (58.96%) and Poles (52.17%), respondents with primary (55.56%) and higher education (52.28%), and widowed persons (60%) regardless of the number of young children in the family and place of residence[5]. In turn, a more passive group of respondents includes young people ("15–19 years" – 18.18%, "20–24 years" – 10.53%), Latgalian Ukrainians (7.69%), people with secondary education (23.72%), divorced (20%) and single (26.76%) respondents.

Respectively, older respondents observe Lent more consistently than other groups of respondents. Due to their age and health condition they often try to do it at least partially, with the permission of the priest: "Well, you know, I'm kinda old already… I need at least kinda a little. [..]

[5] Number of children in the family: SRCC: ρ (Spearman) = 0.002, p-value = 0.975; MWUT: p-value is higher than 0.05 in all compared positions; place of residence: SRCC: ρ (Spearman) = 0.011, p-value = 0.831; MWUT: p-value = 0.830.

I try kinda fast on Wednesdays and Fridays, yes [..]" (female, 67, Russian, Rēzekne region, Silmala rural municipality, Kruķi). Middle-aged respondents realize that these once strict rules become void, and entertaining events often take place during Lent: "If representatives of my grandmother's generation couldn't even think about organizing, for example, wedding parties or some other noisy festive celebrations during Lent, nowadays, it isn't get any special importance, as registry offices work nonstop during Lents or any other religious festivities" (female, 48, Russian, Rēzekne region, Silmala rural municipality, Kruķi). Younger generation respondents also mention the changes: "[..] earlier, church was like more of a value. [..] nowadays, in my opinion, they make these celebrations very wide, for example, [..] let's say Easter: earlier, they were sitting at the table, after that they went swinging and these, now, in my opinion, different [..] well, the same table – we sit, speak and after that we go somewhere, I don't know, for a walk, or maybe to a concert in the evening [..], earlier, it seems to me, everything went smoother, in a stricter way" (female, 16, Latvian, Preiļi / Daugavpils); "For example, at let's say Easter here at the main square – people, music plays, everyone dances, everyone parties, there, I don't know, some even get drunk on this festivity. It's unacceptable, of course" (male, 17, Russian, Daugavpils).

Egg Colouring

Researchers admit that it is difficult to determine how old the egg colouring tradition in Latvian festive culture is, although it does not belong to the ancient Easter rites and therefore is considered an innovation (Grīns, Grīna 1992: 61; Karaša 1991: 21; Olupe 1992: 145).

Today this tradition is recognized as one of the most consistently observed in the region: 95.3% of the total number of respondents colour eggs at Easter; the most active are female respondents (98.25%), representatives of middle-aged and older generations (100% is identified in the age groups "30–34 years", "35–39 years", "45–49 years", "65–69 years" and "70+ years"), Latgalian Ukrainians, Belarusians (100%), Latvians (98.12%) and Poles (91.67%), persons with basic education (100%), widowed persons (100%), respondents without young children in the family (96.42%); a territorial factor does not determine the intensity of observance of the Easter egg colouring tradition[6].

The way of colouring eggs with onion peels is the most popular one in Latgale today. Respondents emphasize the ancient origin of this tradition and the natural end product: "[..] we colour by ourselves with everything – with onion, with grass" (female, 19, Latvian, Daugavpils); "It's the right thing. Natural" (female, 67, Russian, Rēzekne region, Silmala rural manicipality, Kruķi); "We coloured with dye a couple of times, they seemed kinda toxic through [..]. Better in old way, yes" (male, 51, Russian, Daugavpils region, Dubna rural municipality). At the same time, respondents mention that these kind of products are increasingly available at shops. Here we mean

[6] Place of residence: SRCC: ρ (Spearman) = 0.021, p-value = 0.675; MWUT: p-value = 0.674.

not only coloured chicken eggs, but also different types of products made from artificial materials, which contradict Easter traditions: "A hundred years ago, no one would have thought to buy plastic decorations for Easter eggs made in China or any other Eastern country that has nothing to do with Christianity. At that time, eggs were coloured only with natural dyes, but now, before the festivity all shops are full of goods of this type, and these goods are popular, in high demand" (female, 48, Russian, Rēzekne region, Silmala rural municipality, Kruķi).

Easter Egg and Other Food Blessing

Within the framework of the survey, 60.5% of the total number of respondents confirmed that at Easter they regularly take water and various kinds of food products (including eggs) to the church for blessing. This tradition is most consistently observed by female respondents (73.25%), old people ("70+years" – 100%), Latvians (83.96%) and Latgalian Poles (83.33%), respondents with higher education (79.08%), and widowed respondents (78%) regardless of the number of young children in the family and place of residence[7].

Researchers of Latgalian culture point out that the blessing at Easter was primarily applied for bread, eggs, and salt (Zariņš 1975: 36); today, people take many other food products (including sweet stuff) for blessing at the church, as the church allows it: "It's allowed, people bring a lot, everything, in such a small basket, you put an egg there, or bread, or meat [..] sweets, or cookies, well, whatever you [want]" (female, 68, Latvian, Baltinava region, Baltinava).

Easter Egg Rolling

Egg rolling is, in fact, one of the oldest Easter traditions (Segliņš 2016: 123). Egg rolling is still practiced in Latgale, where 36.2% of the total number of respondents tend to do it regularly, most frequently – respondents aged 65–69 years (57.38%), Latgalian Ukrainians (83.33%), Poles (54.55%) and Latvians (44.13%), respondents with higher education (50.25%), respondents who have young children in the family (63.64%), and urban residents (38.83%). In the modern context, egg rolling is of a decorative nature and is targeted at children's audience. Respondents forecast that this tradition may gradually disappear over time: "Also to the church to get holy water, yes, obligatory, we do, we definitely colour eggs, but when it comes to egg rolling… During our childhood, we used to roll eggs, there was such a tradition, but it was a long time ago, now we simply do egg fights…" (female, 60, Pole, Daugavpils region, Ruģeļi).

Easter Egg Hunting

Easter egg hunting is another type of entertainment that is practiced in the region. According to the survey, 33.7% of the total number of respondents regularly participate in this festive activity in Latgale: most frequently it is observed by representatives of middle-aged and older generations,

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[7] Number of children: SRCC: ρ (Spearman) = - 0.038, p-value = 0.438; MWUT: p-value is higher than 0.05 in all compared positions; place of residence: SRCC: ρ (Spearman) = - 0.014, p-value = 0.773; MWUT: p-value = 0.772.

parents' and grandparents' groups ("35–39 years" – 58.33%, "65–69 years" – 52.46%), Latgalian Belarusians (56.25%), Poles (50%), and Latvians (46.48%), respondents with higher education (53.57%), and respondents with three or more young children in the family (72.73%), urban (34.57%) and rural (32.97%) residents are similarly active regardless of their gender[8].

Sources indicate that the Easter egg hunting used to take place in neighbouring yards where boys cadged eggs from girls (Karaša 1991: 25). However, today this activity is considered to be more like a game for children: "Well, in other families it happens that the youth hunts for these Easter hare eggs, but in our family, we don't. Earlier it wasn't that, now the youth [..] hunts for them" (female, 53, Latvian, Baltinava region, Baltinava).

Swinging

Swinging used to play a special role in the context of Easter celebrations – starting with choosing the place where to install the swing and the process of swing construction, swinging itself and actions that followed it. For example, girls paid for swinging with Easter eggs or a pair of handmade mittens (Andžāne 1982: 239; Olupe 1992: 148, 152). Easter swinging is actively practised today for entertainment reasons, without going deep into the ancient context of this action. However, some respondents still believe that it is a guarantee for health and/or a means for combating insects: "At Easter we fast, go swinging so that mosquitoes wouldn't bite [..]" (male, 16, Latvian, Līvāni); "At Easter we went swinging so to also stay healthy [..]" (female, 41, Russian, Daugavpils region, Biķernieki rural municipality, Biķernieki).

According to the survey data, 41.7% of the total number of respondents in the region regularly do swinging at Easter: most frequently it is practiced by female respondents (54.82%), representatives of different age groups ("15–19 years" – 50%, "30–34 years" – 58.97%, "65–69 years" – 68.85%), Latvians (65.73%) and Latgalian Poles (47.83%), people with higher education (63.78%), who have three or more young children in the family (63.64%), regardless of their place of residence[9].

Laying the Easter table, receiving guests and/or paying visits

A festive table is an integral part of the Easter celebrations, which is especially relevant and desired in the post-Lent period. 92.1% of the total number of respondents note that they regularly lay the Easter table at their homes; this tradition is more consistently observed by elderly people ("65–69 years", "70+years" – 100%), Latvians (96.24%), Latgalian Poles (95.65%) and Belarusians (93.75%), widowed and divorced respondents (100%), as well as by respondents who have three or more young children in the family (100%). A place of residence does not significantly affect activities around laying the Easter table[10].

[8] Gender: SRCC: ρ (Spearman) = - 0.033, p-value = 0.509; MWUT: p-value = 0.508.
[9] Place of residence: SRCC: ρ (Spearman) = 0.096, p-value = 0.051; MWUT: p-value = 0.051.
[10] Place of residence: SRCC: ρ (Spearman) = 0.006, p-value = 0.900; MWUT: p-value = 0.900.

Representatives of each ethnic group and denominations in the region have their own Easter gastronomic traditions, but all of them have the idea of a plentiful table and variety of food in common: "[..] then also, of course, various food is being cooked, well" (female, 35, Latvian, Rēzekne region, Silmala rural municipality, Kruķi); "Meat dishes, roasted meat, such as lamb, veal, ham, we don't have enough on the table somehow, and this food is fatty [..]" (female, 60, Pole, Daugavpils reģion, Ruģeļi).

The survey statistics show that residents of the region are equally active in visiting relatives (75.8%) and/or receiving visitors themselves (74.5%). However, it can be concluded that it is people of younger and middle-aged generation ("25–29 years" – 89.66%, "35–39 years" – 91.30%), both Latvians (76.42%), and Latgalian Russians (74.10%) who are more active in paying visits; in turn, respondents over the age of 70 (84.38%) most often receive guests at Easter, and it is mainly typical for Latvian respondents (83.96%).

Conclusions

Today Easter in Latgale is an example of a popular religious festivity. A detailed analysis of observing its traditions reveals a contradiction between the assurance of local people (all traditions are observed, nothing has changed) and the real situation (certain traditions have changed or disappeared, commercialization of Easter, etc.).

On the one hand, according to the survey data, the region is dominated by a positive attitude towards Easter (97.3%) as one of the most significant festivities included in the calendar (82.19%). Respondents describe themselves as active participants in Easter celebrations (94.8%) and believe that they fully respect and observe its traditions (93.9%). Respondents' opinions are confirmed by the fact that in Latgale, egg colouring (95.3%), laying the festive table (92.1%), visiting relatives (75.8%), receiving guests (74.5%), as well as other traditional Easter activities are still actively practiced.

On the other hand, conditions of modern life introduce adjustments to the way Easter is celebrated and the extent to which certain traditions are observed. The following aspects should particularly be mentioned:

1) the noticeable reduction of the preparation stage for the festivity: on the day before Easter, people clean their homes and cook a simple festive meal; although, they do not always observe even these basic traditions;
2) the partial observance of church ceremonies or gradual transition away from them: only 62.7% of the total number of respondents regularly attend church at Easter, and only 39.4% of the total number of respondents observe the Lent, and these are mostly representatives of older generation; this process is significantly affected by "dying out" of rural areas and mass migration of the population in search for work;

3) the influence of commercialization processes: people are increasingly buying but not making themselves the Easter attributes – decorations, eggs, pies, or Easter cakes;
4) the enhancement of the entertainment aspect: in this case, we should mention the Easter swinging (41.7%), which is mostly perceived outside the context of the festivity, as well as egg rolling (36.2%) and egg hunting (33.7%) – traditional games, whose target audience is mainly children.

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Abbreviations

MWUT – Mann-Whitney U-test
SRCC – Spearman Rank Correlation Coefficients

TOWARDS AUTOCEPHALOUS ORTHODOX CHURCH OF UKRAINE: TREND OR UNIQUE SITUATION? COMPARISON WITH LATVIA

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Abstract

Towards autocephalous Orthodox Church of Ukraine: trend or unique situation? Comparison with Latvia

Key Words: *church, orthodoxy, religion, Ukraine, Latvia*

Following the annexation of Crimea and the military conflict in eastern Ukraine, relations between Ukraine and Russia deteriorated, including the area of the Orthodox church. Until now, the only recognized Orthodox church in Ukraine was the Ukrainian Orthodox Church of the Moscow Patriarchate. However, in early 2019, the Patriarchate of Constantinople granted autocephaly or independence to new Orthodox Church of Ukraine, thus officially recognizing it. The annexation of Crimea and the military conflict in eastern Ukraine led Latvia also to review its relations with Russia, including the area of the Orthodox Church. For example, starting from summer 2019, the head of the Latvian Orthodox Church, which is under the jurisdiction of the Patriarchate of Moscow, metropolitans and bishops must be Latvian citizens who have lived in Latvia for the last 10 years. In addition, at the end of the year, the "Latvian Orthodox Autonomous Church in the jurisdiction of the Patriarchate of Constantinople" was registered – a structure parallel to the Latvian Orthodox Church. Considering that Latvia and Ukraine are in the sphere of Russian foreign policy interests, that both countries are subject to Russian compatriot policy, that both countries have a large number of parishioners of the Orthodox Churches under the jurisdiction of the Patriarchate of Moscow, it was decided to examine whether granting autocephaly to the Orthodox Church of Ukraine is a unique situation, or it is also possible in Latvia. Within the framework of this article, the preconditions that led to the establishment of the autocephalous church in Ukraine were clarified, as well as it was examined whether such preconditions exist in Latvia. It was concluded that the necessary condition for the establishment of an autocephalous church in Ukraine is the historical basis, in particular, the independence of the Ukrainian Church before transferring of the Kiev Metropolitanate to the Moscow Patriarchate in 1686, while the sufficient condition is the tendency of then-President Petro Poroshenko to legitimize power. Such preconditions do not exist in Latvia.

Kopsavilkums

Ceļā uz autokefālo Ukrainas pareizticīgo baznīcu: tendence vai unikālā situācija? Salīdzinājums ar Latviju

Atslēgvārdi: *baznīca, pareizticība, reliģija, Ukraina, Latvija*

Pēc Krimas aneksijas un militārā konflikta Austrumukrainā attiecības starp Ukrainu un Krieviju pasliktinājās, arī pareizticīgo baznīcas ziņā. Līdz šim vienīgā atzītā pareizticīgo baznīca Ukrainā bija Maskavas patriarhāta Ukrainas Pareizticīgā baznīca. Tomēr 2019. gada sākumā Konstantinopoles patriarhāts piešķīra autokefāliju jeb patstāvību jaunai Ukrainas Pareizticīgajai baznīcai, tādējādi to oficiāli atzīstot. Krimas pussalas aneksija un militārais konflikts Austrumukrainā lika Latvijai arī pārskatīt savas attiecības ar Krieviju, tostarp pareizticīgo baznīcas jomā. Piemēram, sākot ar 2019. gada vasaru, Latvijas Pareizticīgās baznīcas, kas ir Maskavas patriarhāta pārraudzībā, metropolītiem un bīskapam jābūt Latvijas pilsoņiem, kuri valstī ir nodzīvojuši pēdējos 10 gadus. Turklāt gada beigās tika reģistrēta "Latvijas Pareizticīgā Autonomā Baznīca, Konstantinopoles Patriarhāta jurisdikcijā" – struktūra, kas ir paralēla Latvijas Pareizticīgajai baznīcai. Ņemot vērā, ka Latvija un Ukraina atrodas Krievijas ārpolitisko interešu sfērā, ka abas valstis ir pakļautas Krievijas tautiešu politikai, ka abās valstīs ir liels skaits pareizticīgo baznīcu draudzes locekļu Maskavas patriarhāta pakļautībā, tika nolemts izpētīt, vai autokefālijas piešķiršana Ukrainas Pareizticīgajai baznīcai ir unikāla situācija, un vai tā ir iespējama arī Latvijā. Šī raksta ietvaros tiek noskaidroti priekšnosacījumi, kas noveda pie autokefālās baznīcas dibināšanas Ukrainā, kā arī tiek pārbaudīts, vai šādi priekšnosacījumi pastāv Latvijā. Tika secināts, ka nepieciešamais nosacījums autokefālās baznīcas izveidošanai Ukrainā ir vēsturiskais pamats, jo īpaši tās neatkarība pirms Kijevas metropolīta nodošanas Maskavas patriarhātā 1686. gadā, savukārt pietiekams nosacījums ir toreizējā prezidenta Petro Porošenko tendence leģitimizēt varu. Latvijā šādu priekšnosacījumu nav.

Introduction

The aim of this article is to answer two questions: 1) whether granting autocephaly to the Orthodox Church in Ukraine was a unique situation or a trend, and if the latter, whether such development of events is possible in Latvia; 2) what were the preconditions that led to the establishment of the autocephalous church in Ukraine, and do these preconditions exist in Latvia. Research method is qualitative research method – document analysis. Within this article Ukrainian, Latvian, Latvian Orthodox Church's, and Ecumenical Patriarchate of Constantinople official documents will be analyzed. Moreover, interviews of Latvian and Ukrainian officials, as well as Orthodox Churches' representatives also will be evaluated. The main part of the study will be devoted to modern history – the events after the collapse of the Soviet Union. At the same time, if necessary, other time periods will be mentioned.

Discussion

The first attempt to create the autocephalous Orthodox Church in Ukraine was made shortly after the collapse of the USSR, but was not successful. In the late 1980s, on the territory of the Ukrainian SSR, because of the *perestroika* and the general liberalization of political life a revival of Greek Catholicism and autocephalous Orthodox communities began. This particularly affected Western Ukraine where national sentiments were common. After secession from the USSR the first president of independent Ukraine, Leonid Kravchuk, decided to seek the creation of an independent (autocephalous), single, and local Ukrainian Orthodox church, which would be outside the jurisdiction of Moscow. Consequently, in November 1991, the Council of the Ukrainian Orthodox Church of the Moscow Patriarchate (UOC-MP) appealed to the Moscow Patriarchate with a request to grant an autocephaly to the Ukrainian church. However, several months later at the Council of Bishops in Moscow most bishops of the UOC-MP refused to sign this appeal. Then Metropolitan Filaret (Mykhailo Denysenko) with some clergy and parishioners left the Moscow Patriarchate and formed the Ukrainian Orthodox Church – Kiev Patriarchate (UOC-KP), the head of which became known as the "Patriarch of Kiev and All Ukraine." In 1995, Filaret himself took this post. The Russian Orthodox Church (ROC) and all other local Orthodox churches, including the Ecumenical Patriarchate of Constantinople (EPC), did not recognize the UOC-KP.

The second notable attempt for creating the autocephalous church was made in 2007 and also was not successful. The President of Ukraine Viktor Yushchenko discussed with the then- Patriarch of Kiev Filaret the possibility of uniting Ukrainian Orthodoxy. V. Yushchenko called for the creation of a mixed commission of the UOC-MP and UOC-KP to overcome the split in the Ukrainian Orthodox Church and create a single local church. However, it caused a disagreement from the ROC and the UOC-MP. Later this year the question of creating a single independent church in Ukraine was discussed at a meeting between Bartholomew I (Dimitrios Arhondonis), archbishop of Constantinople and ecumenical patriarch, and V. Yushchenko in Istanbul. In 2008 on the eve of Bartholomew I visit to Kiev, the secretariat of V. Yushchenko took the initiative to organize negotiations between Filaret, Bartholomew I, and Patriarch of Moscow Alexy II (Aleksei Ridiger). It was reported that the Ukrainian side offered Bartholomew I to accept the UOC-KP into the bosom of the Patriarchate of Constantinople as the Metropolitanate, for which it was necessary to annul the act of Patriarch Dionysius IV on transferring the Kiev Metropolitanate to the Moscow Patriarchate in 1686 (this act will be described and accessed later in the article). Bartholomew refused to recognize the canonicity of the UOC-KP, and the meeting with Filaret did not take place.

Despite the failures of the predecessors, Ukrainian ex-president Petro Poroshenko and state's officials in two years, from 2016 to 2018, managed to achieve autocephaly for the Ukrainian Orthodox church, which is explained by two preconditions: historical basis, in particular, the independence of the Ukrainian Church before transferring of the Kiev Metropolitanate to the Moscow Patriarchate in 1686 (necessary condition) and president's tendency to legitimize power (sufficient condition). The first meeting between P. Poroshenko and Bartholomew I took place at the residence of the patriarch in Istanbul in March 2016. At the press briefing then-president of Ukraine only noted that he had discussed with the patriarch "the single local Orthodox church that the Ukrainian people are striving and waiting for." (Каменев, 2018) He also announced that the independence of the church is a matter of national security and a component of state independence.

Yet P. Poroshenko was not the only political actor, who promoted the idea of creating the autocephalous church – in June 2016, the Ukrainian Parliament, the Verkhovna Rada, adopted Decree No. 1422-VIII "On the Appeal of the Verkhovna Rada of Ukraine to His Holiness Bartholomew, Archbishop of Constantinople and New Rome, Ecumenical Patriarch on the provision of autocephaly of the Orthodox Church in Ukraine." In this appeal, Verkhovna Rada deputies asked Bartholomew I to invalidate the act of 1686. It granted the right through oikonomia to the Patriarch of Moscow to ordain the Metropolitan of Kyiv, but did not imply the transfer of the Metropolitan of Kyiv to the Moscow Patriarchate.

Ukrainian parliament argued that the act was adopted in violation of the holy canons of the Orthodox Church. In addition, deputies asked Bartholomew I to take part in overcoming the consequences of church separation by convening, under the auspices of the Ecumenical Patriarchate, the All-Ukrainian Unification Council with the aim of resolving all disputed issues and uniting Ukrainian Orthodoxy, and issue a tomos that will officially recognize and establish the autocephalous Orthodox Church of Ukraine. "After the events of 2014, Ukraine will never be neither political, nor church colony of Russia. As the state of the Orthodox Church in Ukraine shows, it has long been ready for all the appropriate criteria for the status of a local autocephalous church," the document said. (Верховна Рада України, 2016)

In 2017, interaction between Ukrainian politicians and the EPC continued. However, cooperation accelerated in 2018: in April P. Poroshenko during a visit to Turkey met with Bartholomew I. As Ukrainian president later stated, he received assurances from the patriarch that autocephaly would be given if there would be an appropriate appeal to him. (Администрация

Президента Украины, 2018). On April 18, P. Poroshenko met with the leaders of the UOC-KP, Ukrainian Autocephalous Orthodox Church (UAOC), and UOC-MP. The hierarchs of the UOC-KP and UAOC signed appeal to Bartholomew I for the provision of a tomos for autocephaly. (Администрация Президента Украины, 2018) Besides, according to the statement of the Metropolitan of the UOC MP Sofroniy (Dmitry Dmitruk) in May 2018, he also signed an appeal to Bartholomew I, as well as, according to his information, another bishop of the UOC MP. Moreover, up to ten bishops of the UOC MP supported this appeal. (Глуховський, 2018).

On October 9–11, a meeting of the Synod of the EPC was held, which proceeded to grant the autocephaly to the Orthodox Church of Ukraine. In addition it "revoked the legal binding of the Synodal Letter of the year 1686, issued for the circumstances of that time, which granted the right through oikonomia to the Patriarch of Moscow to ordain the Metropolitan of Kyiv, elected by the Clergy-Laity Assembly of his eparchy, who would commemorate the Ecumenical Patriarch as the First hierarch at any celebration, proclaiming and affirming his canonical dependence to the Mother Church of Constantinople." (The Ecumenical Patriarchate of Constantinople, 2018) P. Poroshenko welcomed this decision, stating, in particular, that it means "the fall of the Third Rome as Moscow's oldest conceptual claim for world hegemony." (Администрация Президента Украины, 2018). In November he also signed an agreement on cooperation and interaction between Ukraine and the EPC. (The Ecumenical Patriarchate of Constantinople, 2018)

P. Poroshenko tendency to legitimize his power were evident in his speeches, claims, behavior, and assessments. He tried to minimize and delegitimize Russia's influence, its presence in Ukraine, as well as make the association with Russia's governing bodies and related structures negative. For example, P. Poroshenko regarded the UOC-MP as an instrument of Russia in the war with Ukraine. "Can these temples be called Ukrainian, if there they pray for the patriarch of the Russian Orthodox Church, Cyril (Vladimir Gundyayev), who, for his part, prays for the Russian army, which kills Ukrainian soldiers and the civilian population? I ask parishioners of this denomination to think about this." (Каменев, 2018) Speaking in the Verkhovna Rada in April, ex-president said that the issue of an autocephaly is "a matter of national security and our defense in a hybrid war, because the Kremlin considers the Russian Orthodox Church as one of the key instruments of influence in Ukraine." (Администрация Президента Украины, 2018). He also claimed that a tomos will strengthen Ukrainian independence. "It will remove the vestiges of political project, which is called the "Russian World" and which, by the way, was invented by the hierarchs of the ROC. Only later this political heresy was seized by the secular authorities of the Russian Federation." (Ukrinform, 2018)

In other statements P. Poroshenko compared an autocephaly with strengthening Ukrainian independence and stressed his role in achieving it, both directly and indirectly. For instance, in

August 2018 he declared: "The body cannot be free when the soul is in captivity. Hear us today in Constantinople, Moscow, and the Vatican. We are determined to cut the last knot with which the empire is desperately trying to tie us to itself." (Порошенко, 2018). He also demanded Russia to stop interfering in Ukrainian domestic affairs. Moreover, few days after the Unification Council, which voted for the creation of the autocephalous Orthodox Church of Ukraine (OCU), Poroshenko said: "The creation of the single autocephalous church is [..] a state event comparable to the Declaration of State Independence. Now we are completing the construction of the state, because without an independent church there can be no independent state. I thank God for the great honor of participating in the creation of a single church." (Порошенко, 2018).

P. Poroshenko also used the establishment of the OCU in his election campaign, indirectly claiming it as a personal success. He presented himself in 2014 elections as a businessman and a reformer, but five years later he appeared in the guise of the father of the nation, putting forward a patriotic campaign slogan triad: "Army! Language! Faith!" The inclusion of the church issue in the campaign agenda was made to attract additional votes. For P. Poroshenko, the question of creating a single, autocephalous church became a matter of political survival. (Скоркин, 2018) The fall in the rating recorded by Ukrainian sociological services pushed him to applying this strategy.

From October 2017 up to April 2018 the rating of then-president dropped from 15% to 10%. Yet when he announced that received assurances from Bartholomew I that autocephaly will be given, his rating grew a little. Moreover, when a tomos was finally issued P. Poroshenko rating notably improved. (Rating Group Ukraine, 2019) "Tomos really played a role: we and the Razumkov Center conducted the survey, the field phase ended on December 25th, on the 28th we presented the results. Events related to issuing a tomos were in our survey. And in our study, P. Poroshenko's rating really grew by 4%, he has already come off the limits of statistical error. Thus, there was an affect," said Irina Bekeshkina, director of the Ilko Kucheriv Democratic Initiatives Foundation. (Dmytruk, 2019)

The main thesis of P. Poroshenko's statements can be reduced to the idea that now Ukraine has finally and forever left Russia, and there are no more obstacles to become a truly European nation and member of NATO and the EU. Detaching themselves from Russia, Ukrainians reproduce a model of close connection between the national church and the leader of the state, which was one of P. Poroshenko goals, including, essentially, legitimizing his power. In this case the autocephalous, single church plays as a "bond", an instrument of nation-building, a symbol of the state's cultural and political identity, and the keeper of traditional values. Hence national church defines itself through relations with its state and by proxy its leaders, indirectly legitimizing their power.

The second, necessary, condition for creating an autocephalous church was historical basis. In September 2018, the EPC released the report "Ecumenical throne and the Ukrainian Church. Documents speak," dedicated to the substantiation of the thesis that the Patriarchate of Constantinople never transferred its Kiev Metropolitanate to the Moscow Patriarchate, but only allowed the Moscow Patriarch to ordain the Kiev Metropolitan. Thus, the Synod of the ECP, headed by Bartholomew I, invalidated the decision to transfer the Kiev Metropolitanate to the jurisdiction of the Moscow Patriarchate. (Синодальне управління військового духовенства, 2018) Later this became a historical basis for the Synod of the EPC, when it decided to grant autocephaly to the Church of Ukraine.

From the canonical point of view, it means that today in Ukraine the UOC-MP no longer exists. According to the decision of the Synod of the EPC, all bishops in Ukraine are now *de facto* bishops of the Ecumenical throne. "The Moscow position has always been that schismatics should return to Moscow's jurisdiction by repenting. Unfortunately, this method has been ineffective for thirty years," says the bishop of the Church of Constantinople, representative of the Ecumenical Patriarchate at the World Council of Churches, Doctor of Theology, Archbishop Job (Ihor Getcha). (Хоменко, Денисов, 2018) In the end, he states, at a certain point it became clear that this format – the administration of the Ukrainian Church by the UOC-MP – does not work, and there is a necessity to find another format that could not only save people, but also unite them. He adds: the only such format that has existed in the Orthodoxy for centuries and can help in the Ukrainian situation was autocephaly.

As for the Latvian Orthodox Church (LOC) of the Moscow Patriarchate, there is no historical basis same or similar to Ukrainian Church's case for an establishment of autocephalous church. In 1992, shortly after the restoration of Latvian independence, the All-Latvian Orthodox Council was held to discuss the future status of the LOC. It was decided to maintain autonomy under jurisdiction of the Moscow Patriarchate. The main reason – it was a continuation of a tradition. After the incorporation of Riga and Vidzeme into the Russian Empire (1710), the Orthodox congregations were included in the Diocese of Pskov, which was and still is part of the Moscow Patriarchate. Only for a brief period the LOC was under the jurisdiction of the Patriarchate of Constantinople. The death of Archbishop John (Jānis Pommers) in 1934 raised the issue of the jurisdiction of the LOC. Acting Patriarch of Moscow, Metropolitan Sergius (Ivan Stragorodsky) appointed Metropolitan of Vilnius and Lithuania Eleutherius (Dmitry Bogoyavlensky) as interim governor of the Latvian diocese (until the election of the bishop) in 1935. However, the Synod of the LOC did not recognize his canonical rights. The Latvian Orthodox Clergy and Congregational Congress addressed the Patriarch of Constantinople Photios II (Dimitrios Maniatis) with a request to accept the LOC with the right of autonomy under the jurisdiction of the Patriarchate of Constantinople, and in July 1935 the request was granted. However, soon after the USSR occupation, the LOC returned to the jurisdiction of the Moscow Patriarchate.

As for political demands, they also were not present. None of current prominent Latvian politicians and officials neither made public attempts to ask the EPC for an autocephaly for the LOC, nor they used it in order to legitimize their power. Last significant event regarding the LOC happened in June 2019: Saeima, the Latvian parliament, in weeks' time reviewed and adopted amendments to the Law on the LOC. Now only those who are citizens of Latvia and have lived here for at least the last ten years may be the metropolitan or bishops or the LOC. (Latvijas Vēstnesis, 2019) Namely the state security aspect was one of the justifications mentioned in the annotation, along with arguments such as the need to protect the church from possible foreign influence and the protection of its autonomy.

The annotation of the amendments indicates that the affiliation of clergy and officials of religious organizations to Latvia is necessary in order to ensure the strengthening of the highest goals of the church – spirituality and faith, as well as the formation of a harmonious and cohesive Latvian society. The amendments would contribute to the achievement of the goal already set by law, stipulating that the officials and candidates for the position of the Latvian Orthodox Church must know the Latvian society, culture, and legal environment. Likewise, the determination of the criterion of citizenship and residence for officials in such religious organizations, the management of which is located outside Latvia, will allow strengthening the autonomy of this organization and its ability to distance itself from potential foreign influence. This, in turn, will strengthen Latvia's state and public security. (Saeima, 2019)

The security aspect was also stressed by Latvian Foreign minister Edgar Rinkevičs. "We assess this situation from the perspective of a states's foreign policy and security. Therefore, I do not think I can say directly at the moment that there have been any serious decisions or signals from the [Moscow] Patriarchate's leadership, but there have been some activities that have kept us alert, and we have also done some foreign policy prevention work by informing and educating our colleagues about the adopted law, as well as about our position, from a purely legal historical point of view" (De facto, Inga Šņore, 2019). The amendments were prepared in consultation with the Ministry of Foreign Affairs and the Latvian Orthodox Church. Nikolai Tikhomirov, the high priest of the LOC, and a member of the Synod, said that church's statues already state that you must be a citizen, that you must know the conditions of the Latvian state, but the 10 years required by law are even better.

It is also worth to mention, that in October 2019 the Ministry of Justice registered the "Latvian Orthodox Autonomous Church in the jurisdiction of the Patriarchate of Constantinople." However, the head of the newly registered religious organization is Viktor Kontuzorovs, who was expelled from the Orthodox Church by the Council of the Latvian Orthodox Church in Moscow in 1997. Since then V. Kontuzorovs has not been considered an Orthodox and has nothing to do with Holy Orthodoxy, claims the LOC. In addition, it states, that all the widespread news of the transfer or relocation of our Church to Constantinople is considered false, which were caused by people hostile to Orthodoxy and uncritically spread by the media. (Pravoslavie.lv, 2019) In comparison to the LOC V. Kontuzorovs' church is marginal both in terms of the number of parishioners and parishes.

Conclusions

Answering the two main questions of the article, it was concluded, that granting autocephaly to the Orthodox Church in Ukraine was a unique situation. Patriarchate of Constantinople found and proved historical basis for establishing a single, autocephalous church in Ukraine. Indeed, the Patriarchate of Constantinople never transferred its Kiev Metropolitanate to the Moscow Patriarchate, but only allowed the Moscow Patriarch to ordain the Kiev Metropolitan. It was a necessary condition, without which an event would not occur. However, political demands and activities of then-President Petro Poroshenko, also played significant role in granting autocephaly to the OCU. It is proved by P. Poroshenko predecessors' failures. Nevertheless, his actions were driven by his tendency to legitimize power, which is evident in his speeches, claims, interviews, election campaign, etc. It became a sufficient condition, without which the event would not be produced. Unlike in Ukraine these preconditions do not exist in Latvia: there is no historical basis to establish an autocephalous church and Latvian politicians and officials did not make public attempts to ask the EPC for an autocephaly or used it in order to legitimize their power. Thus, such development of events is not possible. It should be emphasized that the article analyzed contemporary history. Although other factors could also describe the situation, the conditions described, in the authors' opinion, sufficiently explain it.

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LATVIA'S CONTRIBUTION TO INTERNATIONAL MISSIONS AND OPERATIONS: A WAY TO ACHIEVE POLITICAL GOALS

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Abstract

Latvia's contribution to international missions and operations: a way to achieve political goals

Key Words: *New institutionalism, institutions, international operations, Latvia's national contingent*

The most important Latvia's contribution to the collective defence is involvement in international operations. The involvement of Latvia's national contingent in international operations comprises several stages: preparation, deployment and post-deployment. The institutional framework plays an important role in the above-mentioned stages, because it includes decision making procedure and planning in compliance with the international operation tasks and responsibilities of soldiers.

The aim is to determine whether the perception of policy makers has changed over time. Tasks to achieve the aim: identify the institutional system and responsibilities of institutions to prepare, deploy and provide the necessary support for Latvia's national contingent during and after international operation; explore practical aspects of Latvia's involvement in international operations.

Methodology: Research is based on analysis of new institutionalism, defence policy planning documents, interviews with officials from the Ministry of Defence of the Republic of Latvia and the National Armed Forces of Latvia.

Results: The most important authors of new institutionalism are J. March and J.P. Olsen, B.G. Peters etc. New institutionalism has three basic approaches: historical institutionalism, rational choice institutionalism and sociological institutionalism.

Latvia's participation in international operations is an important part of Latvia's defence policy, and the Latvian national contingent is an instrument for the defence policy makers to achieve political goals, therefore significant attention should be paid to the national contingent's preparation, deployment and post-deployment stage. The stages of involvement of Latvia's national contingent in international operations may be considered as a path – a basis for Latvia to be not only a security and defence receiver, but also a provider.

Kopsavilkums

Latvijas ieguldījums starptautiskajās misijās un operācijās: veids, kā sasniegt politiskos mērķus

Atslēgvārdi: *Jaunais institucionālisms, institūcijas, starptautiskās operācijas, Latvijas nacionālais kontingents*

Svarīgākais Latvijas ieguldījums kopējā aizsardzībā ir iesaiste starptautiskajās operācijās. Latvijas nacionālā kontingenta iesaiste starptautiskajās operācijās ietver vairākus posmus: sagatavošanās, operācijas un pēc-operācijas posmu. Minētajos posmos būtiska loma institucionālajam ietvaram, jo tas ietver lēmumu pieņemšanu un plānošanu, kurai jāatbilst starptautiskās operācijas mērķiem, kā arī karavīru uzdevumiem un pienākumiem.

Raksta mērķis ir noskaidrot vai izpratne par Latvijas kontingenta iesaisti starptautiskajās operācijās ir mainījusies. Uzdevumi mērķa sasniegšanai: identificēt kārtību un institucionālo atbildību Latvijas nacionālā kontingenta sagatavošanā, nosūtīšanā un pēc-operācijas pasākumu nodrošināšanā?; izpētīt Latvijas iesaistes starptautiskajās operācijās praktiskos aspektus?

Metodes: raksts tiek balstīts uz jauno institucionālismu, kā arī uz intervijām ar aizsardzības nozares atbildīgajām amatpersonām.

Jaunā institucionālisma nozīmīgākie autori ir Dž. Māršs un J.P. Olsens, G. Pīters u.c. Jaunajam institucionālismam ir trīs pamata pieejas: vēsturiskais, racionālās izvēles un socioloģiskais institucionālisms. Latvijas dalība starptautiskajās operācijās ir nozīmīga daļa Latvijas aizsardzības politikā un Latvijas nacionālais kontingents ir instruments politikas veidotājiem politisko mērķu sasniegšanai, tādēļ būtiska uzmanība jāpievērš nacionālā kontingenta nosūtīšanai, operācijas un pēc-operācijas posmam. Latvijas nacionālā kontingenta iesaistes posmi var tik uzskatīti par ceļu, lai Latvija būtu ne tikai drošības un aizsardzības saņēmējs, bet arī sniedzējs.

Introduction

Latvia joined NATO and EU in 2004, both organizations are important for Latvia's defence policy – it is based on NATO, but EU has a complementary role. Latvia's involvement in international operations is the most visible contribution to the collective defence. With the national contingent in international operations, Latvia provides security and defence not only for locals, but for partners as well. There are several stages for Latvia's national contingent to fulfil its tasks: preparation, deployment and post-deployment stage. It comprises complex procedures, and in all stages of these procedures a significant role is given to the institutions. The normative frame determines institution rights, duties and authority. Quality of institutional activity allows to fully contribute to international operations.

Institutional framework plays an important role in the above-mentioned stages. The most applicable approach to identify the specifics of institutions is new institutionalism. It consists of different strands – three of them are basic: historical, rational choice and sociological institutionalism. For this article, the author will apply sociological institutionalism.

The aim is to determine whether the perception of policy makers has changed over time. Tasks to achieve the aim: identify the institutional system and responsibilities of institutions to prepare, deploy and provide the necessary support for Latvia's national contingent during and after international operation; explore practical aspects of Latvia's involvement in international operations.

To achieve the goal, the author will analyse basic strands of new institutionalism, sociological institutionalism, and will identify the legal and practical aspects of Latvia's involvement in international operations.

Basic aspects of new institutionalism

New institutionalism is a broad movement with focus on institutions, institutions shape and impact policy outcome. Institutions in defence and security sector are more important than in other areas, because the future and prosperity of citizens depend on decisions made within the institutions. All new institutionalism strands can be characterized by one phrase – institutions matter. Regarding importance of institutions, it is essential to point that, according to the K. Thelen and S. Steinmo, political science is research of institutions (Steinmo and Thelen, 1992). Early 1980s can be considered as the birth of new institutionalism. New institutionalism derives from behavioural revolution and rational choice theory. V. Lowndes and M. Roberts identify three stages of new institutionalism evolution: Exploration and Rediscovery from 1930s to 1970s, Divergence and Division from early 1980s to late 1990s, Convergence and Consolidation from early 2000s to date (Lowndes and Roberts, 2012). The first stage includes old institutionalism and emergence of new institutionalism, in the second stage diversification of new institutionalism can be identified, but in the final stage researchers are concerned with consolidation.

New institutionalism has three basic approaches: historical, rational choice and sociological institutionalism. From B. Rosamond derives that in rational choice institutionalism actors are a central element for analyses, because they follow their interests and their goal is to maximize their preferences (Rosamond, 2000). In rational choice institutionalism, according to B.G. Peters, actors are autonomous and individualistic (Peters, 2012). Scholars of sociological institutionalism analyse not only regulative and normative pillar of institutions, but they base their researches on values, beliefs and cognitive scripts as well. E. Durkheim highlights that sociology is a synonym to institutions, because sociology is a science of institutions (Durkheim, 1985). V. Scott concluded that in sociological institutionalism institutions consist of cognitive, normative and regulative structures (Peters, 2012). In sociological institutionalism significant attention is imposed on cognitive scripts. According to R.C. Shank and R. Abelson, cognitive scripts are related sequences of actions that characterize frequently experienced events and, in turn, guide expectations and behaviour in everyday situations (Jensen, 2006). It is an example, a guide for future action. Cognitive scripts are mental procedures.

Legal aspects and types of international operations

Latvia's participation in international operations is based on international treaties and legal framework, and it is one of the National Armed Forces (NAF) of Latvia main tasks. Latvia is involved in NATO and EU, its capacity building by contributing to international operations and by engaging in other directions with the aim to strengthen collective defence. All types of international operations can be identified by their tasks: international peacekeeping operations, international peace enforcement operations, international rescue operations, international humanitarian operations and international military operations.

Latvia's involvement in international operations as an important contribution to collective defence was initiated before Latvia joined NATO and EU. The importance of international operations derives from Latvian National security and State defence concepts. From all seven Latvian National security concepts most of all about international operations is mentioned in 2008, 2011 and 2015 document. If we compare it with all six State defence concepts, most of all about international operations is mentioned in 2008 and 2012 document. From 2011, National security concept derives that Latvia's involvement in international peacekeeping and peace enforcement operations is an opportunity to participate in global political processes and thus receive support from partners to realize national security interests (Likumi.lv, 10.03.2011.). From 2015 National security concept derives that Latvia will contribute to NATO and EU with participation in international operations, it is emphasized that by involvement in peace enforcement operations Latvia would support other countries' ability to control security situations (Likumi.lv, 26.11.2015). According to 2008, in State defence concept one of the state defence development directions is military mobility in the territory of Latvia, transportation to the areas of operation, and maintenance in the area of operation (Mod.gov.lv, 19.06.2008). It is highlighted that the necessity for soldier's readiness and professionality for participation in international operations in geographically close areas where climate, socio-political and economic conditions, environment and culture are different from Latvia's (Mod.gov.lv, 19.06.2008). In international operations soldiers develop their operational experience, optimize support chain and battle cooperation with partner countries. Acquired experience and knowledge are useful for each soldier and state, if it is used in daily duties and for the training, therefore in the decision making process it is important to choose to send to the area of operation soldiers who are active, interested in, and they should have potential to learn quickly and integrate into the complex environment (Interview, 2019). The impression of Latvia is made by each Latvian soldier, it is a question of soldiers' professionalism during participation in the international operations and the way how soldiers represent their country, therefore to send soldiers who are not viable to the international operation is not useful and can result into an unacceptable result.

From 2012, State defence concept derives that Latvia's main contribution to the international security is prevention of new military conflicts and with participation in international operations Latvia ensures the development of NAF (Mod.gov.lv, 10.05.2012). 2012 State defence concept differs from other concepts, because, it highlights specific number of soldiers – NAF required to maintain platoon unit up to 15,000 km from Latvia, squad unit up to 5000 km from Latvia, two squad unit with integrated combat support and maintenance up to 3000 km from Latvia (Mod.gov.lv, 10.05.2012).

From Latvia in international operations are involved representatives from professional service and National Guard. It is in the interest of Latvia, that states and international organizations will act timely and with a comprehensive approach to reduce potential threats and promote international security. According to the National Armed Forces Law, one of the NAF tasks is to participate in international military operations – procedure is included in the laws and international agreements (Likumi.lv, 08.12.1999). Latvia's NAF participation in international operations is regulated by several legal acts; the most important are law on Participation of the Latvian National Armed Forces in International Operations and Cabinet regulation on Procedures for Involving the National Armed Forces in International Rescue Operations and International Humanitarian Operations.

The participation of NAF contingent in international operations should be based on the mandate approved by the United Nations or other organization, or international agreement, legal acts of Latvia, as well as a decision of the Saeima, the Cabinet or, in special case, Minister of Defence (Likumi.lv, 11.03.1995.). Saeima in decision making procedure determines a time period and other provisions. Contrary, the Cabinet is authorized to take decision on the participation of Latvia's National contingent in international rescue operations and international humanitarian operations, but, if it is necessary, for first aid to another country the Minister of Defence can make decision on NAF special contingent's participation in international rescue operations and international humanitarian operations (Likumi.lv, 11.03.1995.). If conditions and restrictions of use of the Latvian National contingent have been violated, or it is necessary to ensure interests of Latvia, contingent can be called back at any time – decision should be made by Saeima or Cabinet (Likumi.lv, 11.03.1995.).

All candidates before deployment to the area of operation should complete special training course. Trainings can be performed abroad as well. Basically, MOD of Latvia is responsible for material and financial resources (representation materials and expenses, resources for special tasks etc.) which are necessary to fulfil the tasks of Latvia's National contingent (Likumi.lv, 29.08.2014). The amount of the representation costs per international operation cannot exceed EUR 800, this amount can be increased by EUR 5 for each soldier or representative from the National Guard, but the financial resources for special, security and combat support events shall not exceed EUR 17 000 per operation (Likumi.lv, 29.08.2014). The above mentioned version of Cabinet regulation does not differ a lot from previous, basically financial support is increased and changes are made for some other issues. Other provisions and competence of institutions derive from MOD of Latvia regulation.

Preparation, deployment and measures after deployment of Latvia's national contingent

For Latvia's participation in international operations means gaining security guarantees and experience. With cooperation on the tactical level Latvia strengthens interoperability with the armed forces of partner states, countries together conduct joint manoeuvres and training, gain operational experience – especially important for soldiers to complete their tasks professionally. To achieve the tasks of Latvia's National contingent, it is necessary to know all steps and follow the specific procedure in all stages.

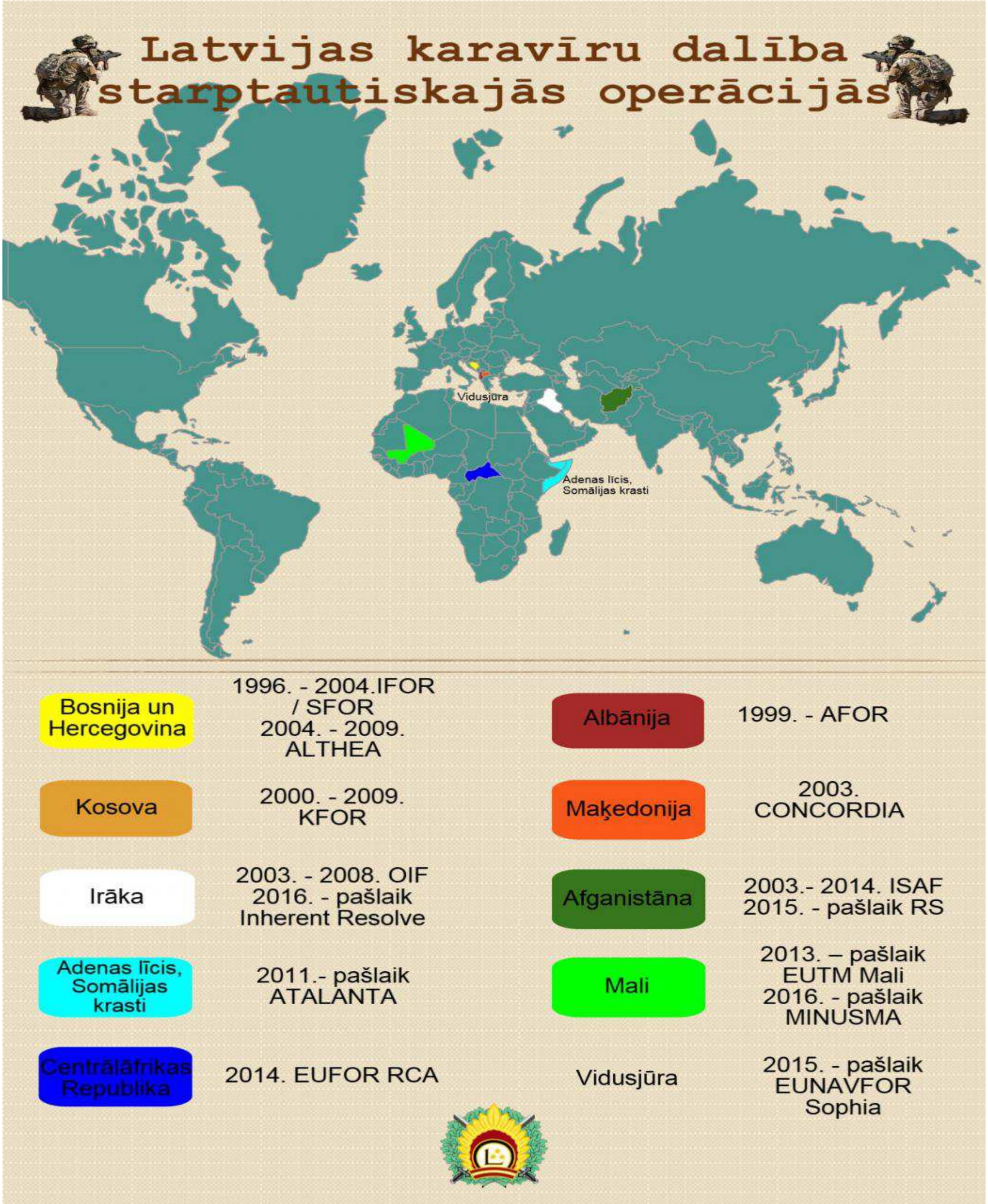
Obligation to participate in international operations is included in each soldier's agreement on professional service, other basis are international treaties, laws and regulations. Latvia's national contingent represents any military formation of NAF or individual soldiers preparing and participating in the international operation, individual soldiers or their formation should be under operational control of international operation leading commander. Latvia's NAF participation in international operations includes – assignment of tasks in the middle-term, middle term planning (including maintenance, etc.), preparation of national contingent or individual soldiers for membership in international operations, participation in international operations and post-operation phase. Latvia's NAF are responsible for planning and provisions for the national contingent during international operation on tactical and operational level (short-term planning), but MOD of Latvia is responsible for the support on strategical level (middle and long-term planning). NAF units for international operations are prepared and sent by the order of the Minister of Defence (if operation is new), after it, NAF commander prepares warning order – it should include the area of operation, possible tasks in the area of operation, planned NAF structure, beginning of international operation and preparatory tasks (MOD Regulation, 2013). During the preparation process of the Latvia's national contingent, coordination and supervision should be made by the commander of national contingent in cooperation with NAF headquarters and responsible units from NAF and the National Guard. Supply chain of Latvia's national contingent and individual soldiers during the preparation phase and during deployment time should be conducted in accordance with the overall NAF supply concept (MOD Regulation, 2013). The commander of national contingent is responsible for the instructional briefing on security requirements, coordination of equipment preparation and transportation to the area of operation, controlling the administrative issues.

During international operation Latvia's national contingent is directly subordinated to NAF headquarters, but operational control (OPCON or OPCOM) or tactical control (TACOM or TACON) is given to the acting commander of international operation, at the same time supply should be provided by each soldier of NAF regular units or the National Guard unit, and the commander of Latvia's national contingent is subordinated to the NAF headquarters. (MOD Regulation, 2013) During international operation the commander of Latvia's national contingent is responsible for financial, logistic supply and execution of the operational tasks of the contingent. In the post-deployment stage the commander of Latvia's national contingent should provide report on operation to the commanders of NAF, soldiers involved in international operation can use post-operation rehabilitation measures and other social guarantees.

Latvia's involvement in international operations – practical aspects

Latvia began to participate in international operations in 1996 in the Balkans, Bosnia and Herzegovina; till 2019 Latvia's soldiers have been involved in different types of international operations (image 1). Currently Latvia participates in six international operations: EU antipiracy operation ATALANTA, EU multinational military training mission in Mali (EUTM Mali), NATO-led mission "Resolute Support" (RS), EU Naval Force Mediterranean "EUNAVFOR Med" military mission "Sophia", a United Nations peacekeeping mission in Mali – Multidimensional Integrated Stabilization Mission (Minusma), Inherent Resolve operation – military intervention against the Islamic State of Iraq and Syria. Latvia's involvement in international operations has been wide, but at the same time it is important that state officials should explain the benefits to the society in more detail (education, economy, financial sector, etc.) from the involvement in international operations, because with that additional support and understanding from the society for involvement, spending etc. can be achieved. (Interview, 2019).

Latvia in the international operations



Source: Imagine 1 (NAF, 2019)

The first international operation for Latvia was in Bosnia and Herzegovina in 1996 (IFOR/AFOR), but in 1999, Latvia was represented in operation in Albania (AFOR) and Kosovo (KFOR). The international operation in Bosnia and Herzegovina was continued by the EU first military operation Althea in 2004. Its purpose was to provide a military presence in the region. The operation tasks: to achieve support from broad society and compliance with the highest standards of democratic legitimacy, to improve the situation regarding organized crimes and corruption, international terrorism, civilian insurgency and ethnic tensions, to eliminate anti-personal landmines to provide opportunity for refugees to return to their homelands, promotion of economic stability and development (especially in tourism and agriculture etc.) (NAF, 2019a). In 2009, Latvia ceased participation in this operation.

In NATO operations KFOR the aim was to prevent repeated violence, Serb and Yugoslavian threats, to restore secure environment and public order, disarm the Kosova Liberation army, support international humanitarian activities, and provide presence of civilian support in Kosova (NAF, 2019b). Latvia in this operation was represented by liaison officer, soldiers from military police, medic and unexpected ordnance disposal specialists. Latvia was involved in that operation from 2000 till August, 2009.

The decision to send Latvian soldiers to the Coalition force operation Iraqi Freedom was made in 2003. Latvia’s contingent consisted from logistic specialists, unexpected ordnance disposal specialists and the infantry unit. Last Latvian infantry unit, consisting of 121 soldiers, returned from deployment in summer 2007 (NAF, 2019c). Latvia’s withdrawal from that international operation took place at the end of 2008 (NAF, 2019c). In May 2014, The Saeima approved the participation of Latvian NAF soldiers in the EU military operation in the Central Republic of Africa (EUFOR RCA) – Latvia’s soldiers guarded the airport in the state capital, transported humanitarian aid to the city and patrolled, they did not participate in combat operations (NAF, 2019d).

One of the most important and significant international operations was the International Security Assistance Force (ISAF) operation in Afghanistan. In February 2003, the leadership of the forces in Afghanistan took Netherland and Germany, offering Latvia to send troops to Afghanistan. Initially Latvia in ISAF was represented by a medic unit, but later to the area of operation Latvia sent a civil-military cooperation officer, drivers, and personnel from unexpected ordnance disposal unit, infantry soldiers, soldiers from headquarters and advisors (NAF, 2019e).

The aim of the operation Atalanta was to protect humanitarian aid deliveries and to ensure the safety of shipping roads in region, operation was approved by United Nations Security Council (NAF, 2019f). In 2010, Saeima took the decision to participate in the operation Atalanta, Latvian soldiers served in the operational headquarters in Northwood, United Kingdom and in the operational area (NAF, 2019f). In compliance with Saeima’s decision in 2013, Latvia began to involve in EUTM Mali. In Mali soldiers increased capabilities of the Mali Armed Forces, the aim of the mission was to restore state territorial integrity. The military operation EUNAVFOR Med “Sophia” was launched in 2015 to neutralise refugee smuggling routes in the Mediterranean. Latvia participated as one of the first countries – Latvian soldiers served at the operation headquarters in Rome, Italy (NAF, 2019g).

In 2016, Latvia joined the operation Inherent Resolve, it was an intervention against the Islamic State. In that operation soldiers trained Iraqi forces to fight against terrorism, coalition forces trained Iraqi and Kurdish soldiers – military instructors and advisors were in five different places (NAF, 2019h). Latvia participated in a counter-terrorism operation with a training group of up to ten soldiers as a part of the Danish contingent. Basis for Latvia to involve in the operation of United Nations in Mali (Minusma) was a decision made by Saeima in 2016, Latvia's national contingent operated as a part of Netherland and Germany contingent (NAF, 2019i).

The most visible and important is Latvia's participation in the international operation RS. This operation is a continuation of ISAF and was launched in 2015. To the area of international operation RS Latvia sent a national contingent up to 30 soldiers, the biggest part of the contingent is based in the camp Marmal, which is located near Mazari Sharif, but a small part of the contingent is located in Cabul. During deployment Latvian soldiers support Afghan national Army, Engineering School, provide specialists in military police multinational unit, provide specialists in the Air support group (NAF, 2019j). According to the Saeima's decision in 2016, Latvia's participation in the RS operation has been extended until December, 2020, involving no more than 30 soldiers (NAF, 2019j). In all international operations the number of Latvian soldiers varies from year to year (chart 1).

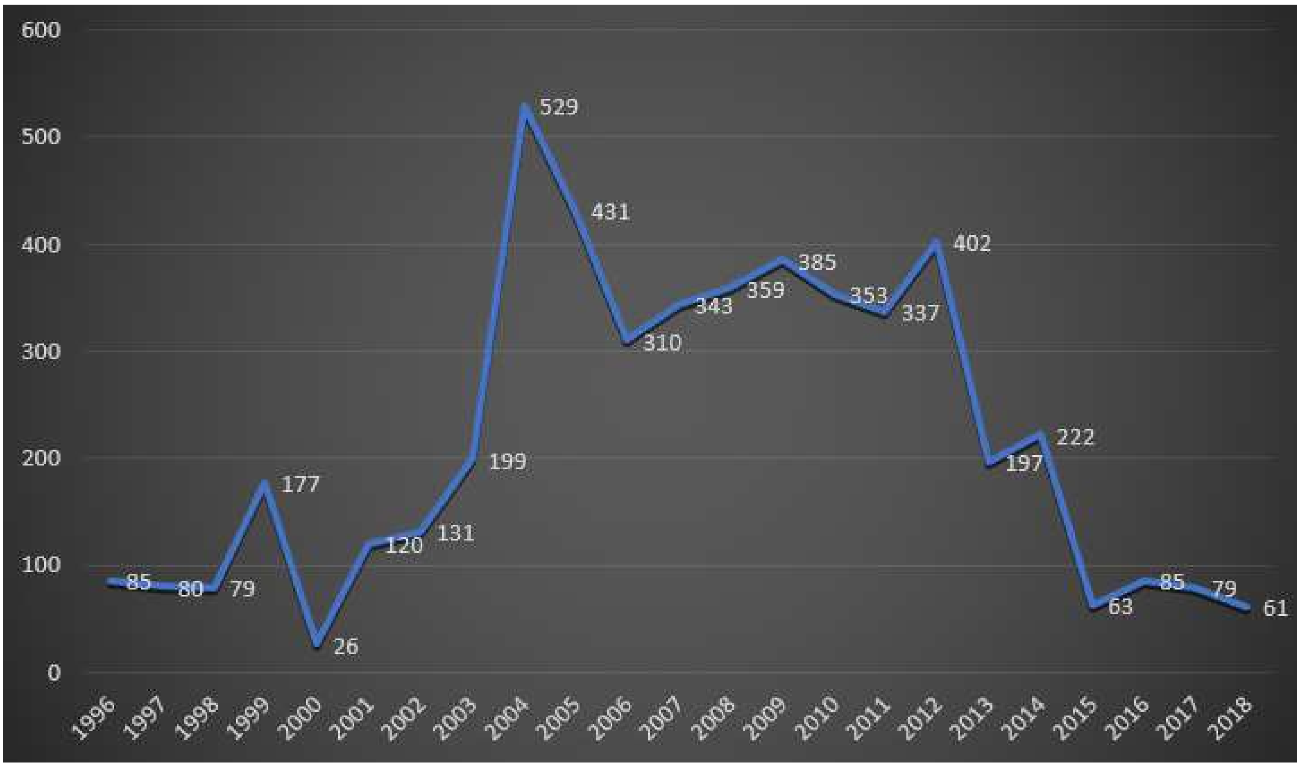


Chart 1. **Latvia's soldiers in the international operations**

Source: Chart 1 (NAF, 2019k)

Most of all Latvia was involved in international operations (529 soldiers in total) in 2004. In 2004, Latvia participated in the following international operations: IFOR / SFOR, KFOR, ISAF, OIF, OSCE, EU Althea, from these operations most Latvian soldiers were deployed to the KFOR-120 and to the ISAF-373 (NAF, 2019k). In the period between 2006 and 2012, Latvia's involvement in international operations did not change a lot, the number of soldiers were from 310 to 402, it should be noted that in 2010 Latvia participated only in one international operation (ISAF) with 353 soldiers (NAF, 2019k).

During the period from 2012 till 2015, there was a decline of Latvia's involvement in international operations: from 402 soldiers in 2012 to 63 soldiers in 2015. Since 2015, most of Latvia's soldiers have been involved in the RS mission. Russian aggression in Ukraine took place in 2014, from Latvia's involvement in international operations it derives that Latvia after these activities did not increase participation in international operations. It is important to point out that participation in international operations is the most important contribution from Latvia to collective defence and it is the most visible direction. Nevertheless, it should be noted that after 2014 till 2019, Latvia has done a lot at home to increase Latvia's capabilities and has invested widely in the NAF infrastructure. For Latvia the dispatch of soldiers to the earie of operation is expensive and it is a question of human resources, Latvia is a small country and these resources are needed at home (Interview, 2019a). Latvia's participation in the EU military missions and operations is not a priority, but Latvia participates in those missions and operations more and more. In total, from 2003 till 2018, in the EU missions and operations 179 soldiers from Latvia have participated (NAF, 2019k). In the EU military missions and operations Latvia has been involved widely from 2013 till 2016. In 2015, Latvia's involvement in EU military missions and operations was almost the same as in other international operations (chart 2).

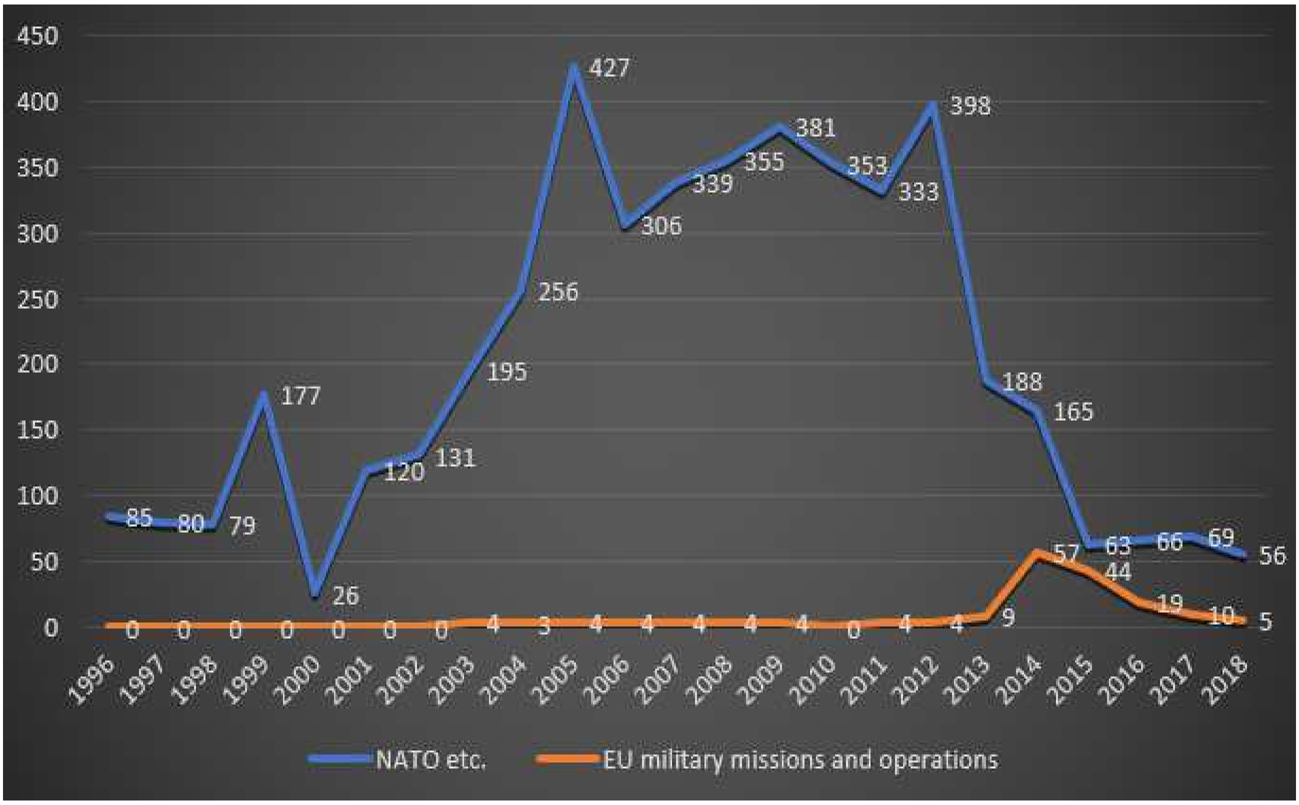


Chart 2. **Latvia's soldiers in the international operations**

Source: Chart 2 (NAF, 2019k)

For Latvia, participating in international operations means gaining security guarantees and experience, it is a way how to provide support to partners as well. Involvement allows Latvia to increase interoperability with soldiers from different countries, to determine tactical trainings, to gain operational experience. Participating in operations NAF can gain operational information from the area of operation about potential enemy, tactics, decision making, etc. (Interview, 2019a). From Latvian soldier involvement in the international operations the most visible benefit is seen on the level of foreign policy, because Latvia cooperates with other countries – Latvia shows its intention, ability and capacity to other partners, by involvement NAF increase their capacity and capabilities, it is a way how to unite the nation and increase self-confidence and trust to NAF and to the whole Latvian defence and security policy (Interview, 2019). Previously, military units for international operations were made based on volunteering principle, but now all soldiers have signed an agreement on serving in NAF, from this agreement derives that soldiers, if necessary, will serve in international operations as well (MOD, 2019).

Latvia's national contingent plays an important role in Latvia's defence, because it is the most visible element. Latvia's political aim is to participate in international operations and support our partners, but, additionally, it is necessary to think and achieve other no less important goals – NAF growth and capacity building should be achieved all the time with direct link to the purpose and aim of national security and defence concepts, Latvia's national economy can also benefit from Latvia's involvement in international operations (Latvia's scientists, researchers and entrepreneurs together with specialists from other countries can test new technologies in any field (military etc.), for medics it can be an opportunity to gain real and different practical experience, for liaisons it can be an opportunity to test different types of communication, etc. (Interview, 2019). For Latvia it is important to use all resources rationally and with purpose. For example, soldiers should gain maximum experience. The decision makers of Latvia's defence and security policy evaluate and consider how to achieve a greater effect for Latvia in the field of defence – by the participation in international operations or by military trainings, manoeuvres and building capacity regionally.

Conclusions

New institutionalism has three main approaches: historical, rational choice and sociological institutionalism. In sociological institutionalism institutions consist of cognitive, normative and regulative structures. Cognitive scripts are related sequences of actions that characterize frequently experienced events and, in turn, guide expectations and behaviour in everyday situations – it is an example, a guide for action, mental procedure. There are different types of international operations; all of them can be identified by their tasks: international peacekeeping operations, international peace enforcement operations, international rescue operations, international humanitarian operations and international military operations.

Latvia's involvement in international operations was initiated before Latvia joined NATO and the EU. The NAF of Latvia should be ready to participate in international operations in geographically close areas where climate, socio-political and economic conditions, environment and culture are different from Latvia. In international operations soldiers develop their operational experience, optimize a support chain and battle cooperation with partner countries. In the decision-making process it is important to choose to send to the area of operation soldiers who are active, interested and they should have a potential to learn quickly and integrate into the complex environment. The impression of Latvia is made by each Latvian soldier, it is a question of soldiers' professionalism during participation in the international operation and the way how each soldier represents a country, therefore, to send soldiers to the international operation who are not viable is not useful and can result in to an unacceptable result.

Latvian representatives from professional service and the National Guard are involved in international operations. The participation of NAF contingent in international operations should be based on the decision made by Saeima, the Cabinet or, in a special case, the Minister of Defence. If conditions and restrictions of use of the Latvia's National contingent have been violated, or it is necessary to ensure interests of Latvia, contingent can be called back at any time. All candidates before deployment to the area of operation should complete a special training course. During the operation with cooperation on the tactical level, Latvia strengthens interoperability with the armed forces of partner states. Countries conduct joint manoeuvres and training, gain operational experience together. To achieve the tasks of Latvia's national contingent, it is necessary to know and follow the specific procedure in all stages – preparation, deployment and post-deployment. Obligation to participate in international operations is included in each soldier's agreement on professional service, other basis for involvement in international operations are international treaties, laws and regulations.

The NAF of Latvia are responsible for planning and provisions for the national contingent during international operations on a tactical and operational level, but the MOD of Latvia is responsible for the support on strategical level. During the preparation process of the Latvia's national contingent coordination and supervision should be made by the commander of national contingent in cooperation with NAF headquarters and responsible units from NAF and the National Guard. Before deployment to the international operation, the commander of Latvia's national contingent is responsible for the instructional briefing on security requirements, coordination of equipment preparation and transportation to the area of operation, controlling the administrative issues.

During international operation Latvia's national contingent is directly subordinated to NAF headquarters, but operational control or tactical control is given to the acting commander of international operation. The commander of Latvia's national contingent is the direct commander of all national contingent personnel and highest authority during deployment time, he is responsible for financial, logistic, supply and execution of the operational tasks of the contingent. In the post-deployment stage the commander of Latvia's national contingent should provide report on operation to the commanders of NAF, soldiers involved in the international operation can use post-operation rehabilitation measures and other social guarantees.

Until 2019, Latvia's soldiers were involved in different types of international operations. Currently Latvia is involved in six international operations, but most of all Latvia was involved in international operations (529 soldiers in total) in 2004. It was the time when Latvia joined NATO and EU as a member of these organisations. In the period between 2006 and 2012, Latvia's involvement in international operations did not change a lot (from 310 to 402) – in 2010 Latvia participated only in one international operation (ISAF) with 353 soldiers. During the time period from 2012 till 2015, there was a decline of Latvia's involvement in international operations: from 402 soldiers in 2012 to 63 soldiers in 2015. Since 2015, most of Latvia's soldiers are involved in the RS mission. For Latvia the dispatch of soldiers to the area of operation is expensive, and it is a question of human resources. Latvia's participation in EU military missions and operations is not a priority. In total, from 2003 till 2018 in the EU missions and operations 179 soldiers from Latvia have participated. For Latvia it means gaining security guarantees and experience, it is a way how to provide support to partners as well. Involvement in international operations allows Latvia to increase interoperability with soldiers from different countries, to determine tactical trainings, to gain operational experience, it is a way how to gain individual experience and growth, it is a way how to increase experience and to strengthen knowledge, NAF can gain operational information from earie of operation about potential enemies, tactics, decision making, etc.

From the Latvian soldier involvement in international operations the most visible benefit is on the level of foreign policy, because Latvia cooperates with other countries – Latvia shows its good intention, ability and capacity to other partners, by this involvement NAF increase their capacity and capabilities, it is a way how to unite a nation and increase self-confidence and trust to NAF and Latvia's defence and security policy. For Latvia it is important to use all resources rationally and with purpose. The decision makers of Latvia's defence and security policy evaluate and consider how to achieve greater effect for Latvia in the field of defence – by participation in international operations or by military trainings, manoeuvres and building capacity regionally.

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Interview, 2019. Anonymous interview with official from NAF (have been deployed to the international operations several times).

Interview, 2019a. Anonymous interview with official from MOD.

DAUGAVPILS LATVIAN COMMUNITY AS VIEWED BY THE PRESS AND JOURNALISM: 1920

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Abstract

Daugavpils Latvian community as viewed by the press and journalism: 1920

Key Words: *the 20th century history of Latvia, War of Independence, Daugavpils History, the Latvians*

After the liberation of Daugavpils in the January of 1920, a new period began in the development of this city. In the third largest Latvia's city, the population consisted of a lot of different ethnicities, however among them only 5% were the Latvians. Latvian newspapers provided information about the life of the Latvian community, and materials of the press of that time are important for today's researchers. The research reveals that these press materials contain the following themes – the place of the small Latvian community among the multi-ethnic society of the city, the fragmented ballot of Latvian voters at the first election to the Daugavpils City Council, hard living conditions and attempts to improve them, the support provided to Daugavpils population by Latvian economic and cultural organizations, opening of education institutions for the Latvians, foundation of Latvian public organizations.

Kopsavilkums

Daugavpils latviešu sabiedrība preses un publicistikas skatījumā: 1920

Atslēgvārdi: *Latvijas 20. gs. vēsture, Neatkarības karš, Daugavpils vēsture, latvieši*

Pēc Daugavpils atbrīvošanas 1920. gada janvārī tās dzīvē sākās jauns un nozīmīgs attīstības posms. Trešā lielākajā Latvijas pilsētā dzīvoja daudzas tautības, starp tiem latvieši bija tikai 5%. Par latviešu sabiedrības dzīvi tolaik informēja Latvijas laikraksti, kuru materiāli ir nozīmīgi mūsdienu pētniekam. Preses materiālus iespējams konstatēt šādas tēmas – mazskaitlīgās latviešu kopienas vieta daudznacionālās pilsētas sabiedrībā, latviešu vēlētāju sadrumstalotais balsojums Daugavpils pirmās domes vēlēšanās, smagie materiālie dzīves apstākļi un centieni tos uzlabot, Latvijas saimniecisko un kultūras organizāciju atbalsts daugavpiliešiem, latviešu mācību iestāžu atvēršana, latviešu sabiedrisko organizāciju dibināšana.

Introduction

The 1920 is a significant year in the history of Daugavpils. During the war for Latvia's Independence, on January 3, the joint armed forces of Poland and Latvia liberated the city from the Red Army. The institutions of the Republic of Latvia were gradually set up in Daugavpils.

In 1920, Daugavpils was the third largest city after Riga and Liepāja, having 29 thousand inhabitants. The Latvians constituted only 5% of the city's population (Skujenieks 1925:59). The Latvian press of that period provided information about the life in Daugavpils, one of them – the Latgalian newspaper "Latgolas Vōrds" – was a regional paper with an editorial board in Riga and Rezekne. Latvian newspapers were not published in Daugavpils at that time.

To reflect the military activities at the beginning of 1920, the periodicals used the official information sources – the reports by the army General Headquarters and the materials prepared by the Latvian Press Bureau (LPB) "Latopress", since May 1920 – Latvian Telegraph Agency (LETA). Under the conditions of war, a free movement of newspaper correspondents was not allowed.

In 1920 after its liberation, Daugavpils witnessed a lot of significant events, therefore, from the aspect of the research it would be logical to examine the published materials in a chronological sequence.

Most Characteristic Press Materials on the Latvians' Life in Daugavpils

On January 10, 1920, the influential daily "Jaunākās Ziņas" began publishing a series of articles "Atbrīvotā Latgale" written by the editorial board correspondent, Jānis Porietis. J. Porietis visited Daugavpils together with the representatives of the British military mission in The Baltic States and thus had the opportunity to observe the situation in the city soon after its liberation. The publication mentioned above, for the first time, focuses on life of different ethnicities. J. Porietis attracted readers' attention to the fact that in Daugavpils there lived the Jews, Poles, Russians, Latgalians and Latvians as well, and this situation made the work of institutions of the new power difficult. War, revolution and the period of the Bolshevik power had made a strong impact on the life of Daugavpils population. J. Porietis pointed out that there were more than 800 refugees in the city and the majority of them were the Latvians (Jaunākās Ziņas, January 14, 1920), besides, the Latvian war refugees returned from Poland via Daugavpils as well (Jaunākās Ziņas, January 13, 1920). The lack of Latvian printing houses and local Latvian newspapers seriously hindered the spread of the Latvian language. Consequently, Daugavpils population was poorly informed about the work of the government of Latvia (Jaunākās Ziņas, January 14, 1920). The paper "Jaunākās Ziņas" devoted attention to another essential issue – the appointment of Latvian civil servants from other regions to Latgale. The correspondent considered that the employees appointed to work in Daugavpils should know the specificity of local conditions very well and therefore these employees should be chosen after a careful selection (Jaunākās Ziņas, January 14, 1920). The newspaper correspondent also was of the opinion that under the conditions when there was such a serious shortage of Latvian employees, the cooperation with foreigners was necessary, especially with the Poles, since the Polish army had liberated Daugavpils (Jaunākās Ziņas, January 15, 1920).

On February 2, 1920, the daily "Baltijas Vēstnesis" started publishing the essay "Ko redzēju Latgale" [What I Saw in Latgale] with sequels to it, written by the journalist and teacher Otto (Atis) Svenne. Devoting his attention to several specific features of Latgale history, O. Svenne focused also on life of different ethnicities and mentioned 9 bigger ethnicities – the Latvians (arrivals from Vidzeme and the local inhabitants), the Russians (the Great Russians and the Belarussians), the Jews, Poles, Lithuanians, Germans and the Estonians. O. Svenne knew the conditions and situation in Latgale well, since at the beginning of the century he had been a teacher in Ludza district. The publication does not mention specific Latvians of Daugavpils, however, O. Svenne's attempts to have a deeper insight into the Latgale Latvians peculiar destinies, which differentiate them from the Latvians in Vidzeme and Kurzeme, are very important (Baltijas Vēstnesis, February 28, 1920).

On February 7, 1920, during his visit to Latgale, the Prime Minister K. Ulmanis arrived in Daugavpils, too. Several papers published LPB information on this event. About 3 thousand people had participated in the people's assembly, talks had been held with the representatives of all ethnicities, the inhabitants had expressed their joy and enthusiasm about liberation (Valdības Vēstnesis, February 12, 1920; Brīvā zeme, February 14, 1920). The correspondent of the newspaper "Latvijas Sargs" added several interesting facts and commentaries to this information. For instance, at the people's assembly in the theatre building, the anthem of Latvia had been sung 5 times, but at the evening party in the City Council – even 15 times. The Jews and the Russians living in the city had got on well with the Latvians, the Russians had expressed regret about not knowing the Latvian language. The inhabitants had gone in the procession around the city, and for the first time in its history the flag of Latvia had been flying in the city (Latvijas Sargs, February 11, 1920).

On February 7, 1920, the paper "Baltijas Vēstnesis" published the article under the title of "Dzīve Daugavpilī" (Life in Daugavpils) signed by the author "Kareivis", possibly some war correspondent serving in the army of Latvia (Baltijas Vēstnesis, February 7, 1920). The author ascertained that during the Bolshevik period, a lot of Latvians had left the city and therefore the majority of the population were the Jews. The paper also appealed to the Riga economic, cultural and scientific organizations for giving help to Daugavpils. The article also mentioned the concert given by the local artists on January 31, 1920, attended by people of different ethnicities. The conclusion was drawn that to organize tours of Riga artists to Daugavpils would be financially profitable.

On February 18, 1920, "Daugavpils latviešu un zemstes darbinieku patērētāju biedrība "Daugava"" (Consumers' Society of Daugavpils Latvians and Zemste [local municipality] Employees "Daugava") was registered in the regional court (Valdības Vēstnesis, February 22, 1920). This society can be considered the first registered Latvian economic organization in Daugavpils. The title implies that people of other ethnicities – Zemste [local municipality] employees – could take part in the work of this society. The society was functioning in the 20s, however there is little information about it in the press.

In March, 1920, Latvian opera singer Malvīne Vīgnere-Grīnberga (1871 – 1949) and other soloists visited Daugavpils. The press called this cultural event the first art concert in Daugavpils after the liberation of Latgale. "Valdības Vēstnesis" informed that many Daugavpils Latvians had expressed a desire to have Latvian concerts more frequently in Daugavpils (Valdības Vēstnesis, March 26, 1920).

On June 20, 1920, the first election to the Daugavpils city council took place, until then there functioned the appointed provisional council. On July 6, the Latgalian paper "Latgolas Vōrds" published a review on the results at the council election, informing that 6 Latvian deputies had been elected to the council. According to the paper, local Catholic Latvians and Lithuanians had voted for the Poles who won 28 seats in the council (Latgolas Vōrds, July 6, 1920). In compliance with the Law on Election, 16 deputy mandates of Daugavpils council members had been nullified, since the elected deputies were citizens of foreign countries (Poland, Lithuania, Russia). Protesting against such an attitude, the Polish faction relinquished their authorities at the Council meeting and left the meeting. The Polish faction did not participate in the first Council meeting (Jēkabsons 2013: 49). The complex relationships between the governmental institutions and the local Polish community were widely discussed in Latvian press. For instance, the newspaper "Strādnieku Avīze" outlined the references in the Polish newspapers concerning this problem. The statements published in the paper "Gazeta Warzawska" were mentioned, informing that in Inflantia (Latgale) Latvian administration and its officials oppressed the Poles, but the Latgalians tended towards Poland and did not trust the government. To reduce the Polish influence in Daugavpils, whose population consisted of 30% of the Poles, government would wish to transfer the Latgale administrative center from Daugavpils to Rēzekne (Strādnieku Avīze, July 11, 1920).

In June 1920, after the establishment of the Republic of Latvia, the first national census was carried out. The census data were discussed in the press. Several newspapers published the article "Tautas skaitīšanas rezultāti Latgalē" (The Census Results in Latgale) which informed that in Daugavpils there lived 18 ethnicities, and the total number of the Latvians was 1472 inhabitants, from which 807 were women (Socialdemokrāts, August 15, 1920; Latvijas Vēstnesis, August 11, 1920; Latvijas sargs, August 11, 1920).

At the end of the summer 1920, with the approach of a new school year, the issue of providing education in Latvian in Daugavpils became very topical. In periodicals, this problem was discussed in relation to organizing Daugavpils Railway School under the management of the Ministry of Education and Railway Central Administration. "Latvijas Vēstnesis" mentioned the fact that in Daugavpils there still were no schools with Latvian as a teaching language, and that the railway-men – Latvians, who mainly were not from Latgale, "warmly welcomed" the foundation of the new school. The paper predicted that the opening of the railway school would require great effort (Latvijas Vēstnesis, September 8, 1920).

In the election to the Constitutional Assembly held in April, 1920, the support to the Latvian and Latgalian lists was not great in Daugavpils, because the city dwellers voted for the lists of the Russians, Jews, Poles. These were followed by the list of the Latvian Social Democratic Workers' Party which received the greatest support in Latvia in general (Latvijas Satversmes sapulce 1920: 80–81). In order to have voters' support, the social democratic party organized a lot of meetings with people in different regions of Latvia. In regard with the planned meeting in Daugavpils on November 28, 1920, the press mentioned the fact that the party representatives would be speaking both Russian and Latvian (Socialdemokrāts, November 25, 1920). The report on this meeting informed that the meeting had been attended by 4000 listeners and the audience had been addressed by one of the leading party members – Bruno Kalniņš (Socialdemokrāts, December 1, 1920).

"Latviešu jaunatnes savienība" (LJS) (The Union of Latvian Youth) founded in 1917 is considered to be the oldest organization of Latvian youth, which saw the enhancement of culture in Riga and in the province as their principal task (Maldonis 1928: 548). The foundation of LJS section in Daugavpils in December, 1920, was a big event with the participation of local leading officials. To the provisional council of the section were elected: Zemgale division chief of staff colonel Kazimers Olekšs, head of the city council Jānis Lecons, council member and the so called "bread giver" Jānis Stencelis, Daugavpils commandant, lieutenant Eduards Graudiņš, chief of the section of Women Corps Novicka, officials Zvaigzne and Blūzmans. All of them were between the age of 30 and 37 (Latvijas Vēstnesis, December 23, 1920).

Conclusions

The evaluation of the press materials about the life of the Latvians in Daugavpils allows identifying several issues vital for the Latvian community of that time – the place of the small Latvian community among the multi-ethnic society of the city, the fragmented voting of the Latvian electorate at the first city council election in Daugavpils, difficult material conditions and attempts to improve them, the support of Latvian economic and cultural organization to the inhabitants of Daugavpils, opening of Latvian education institutions, foundation of Latvian public organizations. It should be taken into consideration that the situation in Daugavpils in 1920 was very complicated, and therefore the press tried to cover the needs and aspirations of the whole local society. It should be admitted that the range of materials devoted to Daugavpils Latvian community was not very extensive in periodicals, however these materials were very important to shape objective public opinion about the situation of Latvians in the third largest city. It should be considered that at the time under discussion, factors that would affect the Latvian community in future had just started developing – Daugavpils garrison of the army of Latvia (in 1921, army detachments were located in the fortress and in the city), Latgale regional court (it was transferred from Riga to Daugavpils in January 1921), Daugavpils Latvian Society (actually started its activity in February 1921).

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FILOLOĢIJA / PHILOLOGY

RELEVANCE OF COMPETENCIES ACQUIRED THROUGH HIGHER EDUCATION TO THE NEEDS OF THE LABOUR MARKET

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Abstract

Relevance of competencies acquired through higher education to the needs of the labour market

Key Words: *translators, professional standards, career competences, students, labour market*

The education system is expected to satisfy constantly changing needs of the labour market, to secure national economy needs, and to curb unemployment level. Though the specialists in English philology are demanded on the market, the employers are reluctant to cooperate with educational institutions, as they consider that young professionals frequently lack competencies required in the respective field. It must also be admitted that study programmes should be oriented towards the needs of the labour market to provide for future employment of their graduates instead of training too many specialists who become unclaimed on the labour market. The aim of the research is to determine students' awareness of necessary career competencies for translator professional standards, as well as to evaluate the opportunity to develop these competencies in the framework of the Bachelor programme in English Philology at the University of Latvia. Methods used in the research: methods of logical analysis and synthesis, monographic and analytical method of research into theoretical and empirical international economic sources, frequency analysis (mean, median), and non-parametric test (Mann-Whitney U-test).

Kopsavilkums

Augstākas izglītības ietvaros iegūto kompetenču atbilstība darba tirgus vajadzībām

Atslēgvārdi: *tulkotāji, profesionālie standarti, karjeras kompetences, studenti, darba tirgus*

Paredzams, ka izglītības sistēma atbildīs pastāvīgi mainīgajām darba tirgus vajadzībām, valsts ekonomikas vajadzībām un ierobežos bezdarbu. Neskatoties uz to, ka angļu filoloģijas speciālisti ir pieprasīti darba tirgū, darba devēji nelabprāt sadarbojas ar izglītības iestādēm, jaunajiem speciālistiem bieži vien nav nepieciešamo kompetenču attiecīgajā jomā. Jāatzīst arī tas, ka apmācības programmām jābūt vērstām uz darba tirgus vajadzībām un jānodrošina absolventu nodarbinātība pēc studiju pabeigšanas, nevis jāapmāca pārāk daudz speciālistu, pēc kuriem darba tirgū nav pieprasījuma. Pētījuma mērķis ir noteikt studentu izpratni par tulkotāju profesionālajiem standartiem nepieciešamajām profesionālajām kompetencēm, kā arī izvērtēt iespēju attīstīt šīs kompetences Latvijas Universitātē īstenotās Angļu filoloģijas bakalaura programmas ietvaros. Pētījumā izmantotās metodes: loģiskās analīzes un sintēzes metodes, monogrāfiskā un analītiskā teorētisko un empīrisko starptautiska līmeņa ekonomisko avotu izpētes metode, frekvenču analīze un neparametrisko vidējo salīdzināšana (Mann-Whitney U-tests)

Introduction

Today almost any employer needs creative and reliable people to work for the company and to achieve its business goals. People are one of the resources in the process of creating new values. M.Pelše (Pelše 2007) divides resources into three groups:

1) natural resources;
2) human resources (human capital; social capital);
3) material resources (financial capital; non-financial capital).

Human capital, also known as human resources, is a complex category consisting of professional knowledge and the potential of a person (employee) or labour collective, aimed at obtaining super profits and ensuring the reproduction process (Kobzistaya 2016). The concept of "human capital" emerged in the 1950s and 1960s, when economists began to address the issues related to the quality of the workforce (Key Trends in Human Capital 2006). The idea of "human capital" comes from the concept of "labour force" described by Karl Marx in "Capital". Economists of the 19th century, including Karl Marx, believed that financial and physical capital were the only forms of capital. They did not consider "labour force" to be capital. However, in the middle of the 20th century, the concepts of social capital, cultural capital and human capital were added to the existing types of capital. The term "human capital" was introduced in the 1960s by economist Theodor Schultz: **"Human capital is the development of knowledge and skills provided to people by school and workplace education, health promotion and the growing amount of information about economic processes"** (Shultz 1960). He believed that human capital, like any kind of capital, could be invested in, for example, education, training, which would lead to the improved quality and production. Gary Becker developed the concept of human capital by justifying the effectiveness of investments in human capital and providing an economic approach to human behaviour: **"Human capital is the potential of the knowledge, talents, abilities, education, intelligence, health, energy that a person possesses and influences his behaviour and work, creative thinking, activity and adaptability. It is an inherent part of the human being and it can be developed or improved by investing time, money and work"** (Becker 1964). Schultz and Becker were the first researchers to consider human capital from a different perspective.

Table 1. **Definitions of "human capital"**

Authors	Content of the definition
H. Bowen	Human capital consists of acquired knowledge, skills, motivation and energy, which are endowed by a person and can be used for a certain period of time to produce goods and services.
J. Coleman	The concept of human capital includes a person's abilities and knowledge that facilitate changes in his or her activities and economic growth.
L. Edvinsson L., M.S. Malone	Human capital is the investment in employee training, productivity and the future. Human capital can be considered as the competence of the employee, his ability to communicate and create value for the client.
N. Bontis, N. Dragonetti, K. Jacobsen, G. Roos	Human capital represents the human factor in an organization. It is the accumulation of intelligence, qualifications and competencies that create the identity of the organization.
A. Sullivan, S. Sheffrin	Human capital is the set of knowledge, skills and competencies that is the basis of human economic activity.
R. Garleja	Human capital is a set of funds invested in human resources; it is a productive wealth that is invested in education, training, exchange of experience, health promotion and the development of many other qualities of life.
National Development Plan of Latvia for 2007–2013	Human capital is the ability of people to be productive and economically active, to use their knowledge, skills and experience. Investment in human capital includes health, education, training and other activities that make people more economically productive.

Source: developed by the author on the basis of the resources used – Thurow 1970; Bowen 1978; Coleman 1988; Edvinsson, Malone 1997; Bontis, Dragonetti, Jacobsen, Roos 1999; Sullivan, Sheffrin 2003; Garleja 2006; National Development Plan of Latvia 2007–2013.

Considering the opinions of different authors on the classification of competencies and skills, as well as taking into account the set of competencies to be developed when acquiring higher education, 5 groups of competencies can be distinguished (Longworth 2004; Lapiņa, Aramina 2010; Spensers, Spensere 2011; Dombrovska 2009; Vintiša 2011; Garleja 2003; Using learning outcomes 2004; Marvel et al 2016; Tomorrow's skills 2009):

– personal competencies;
– professional competencies;
– innovative competencies;
– social and communicative competencies;
– management competencies.

Personal competencies are individual qualities of people, their desire and ability to work, to develop themselves as personalities, to develop their talents and their ability to set increasingly complex personal goals. Personal competencies are revealed through the ability to generalize and analyse information, to plan and manage time, the ability to self-education, critical approach to things and self-criticism, as well as the ability to objectively perceive and analyse criticism, and the ability to work independently.

Professional competencies are personal self-organization in order to perform mental or physical work using professional knowledge and practical skills. Professional competencies are manifested in practical application of such knowledge and skills as basic knowledge and deep (specific) knowledge in a professional sphere and the ability to solve professional problems independently.

Innovative competencies are personal self-organization in order to create new ideas, to express creativity and the ability to use innovations and innovative technologies in practice.

Social and communicative competencies are personal self-organization for cooperation and communication with other people or groups of people to achieve common goals. Social and communicative competencies are manifested in the practical use of such skills and abilities as practical application of written and oral communication in the native language, written and oral communication in the state language, the ability to work in a team, the ability to build relationships with others, the ability to work with representatives of other professions.

Management competencies are personal self-organization for purposeful activity on their own initiative, the ability to objectively assess the situation and to determine possible ways of development. Managerial competencies are manifested in the practical application of abilities and skills, such as the ability to take responsibility for decisions made, the ability to demonstrate the synthesis of new, strategic ideas, and strategic decisions, leadership, the ability to develop and manage projects, initiative and entrepreneurship, the ability to motivate others to achieve a common goal, the ability to resolve conflicts and reduce differences in opinion, the ability to determine values in relation to a given goal, the ability to objectively evaluate the value of a given goal.

Summarizing up the abovementioned information, it can be concluded that there are differences in the interpretation of the concept of competency depending on the context in which the concept is used. The term “competencies” was used to replace the term “skills” or the ability to successfully complete difficult tasks in limited time (Rychen and Salganik 2003).

The author interprets the concept of competency as a set of knowledge, skills, individual characteristics, and relations that an individual is able to offer and use to perform tasks in a certain professional field. Competencies are the link between the education services market and the labour market because in the education services market they manifest themselves as a result obtained in the study process, whereas in the labour market, they are a precondition for qualitative performance in the respective professional field. In the process of obtaining higher education, it is important for a person to develop and raise the level of their general competencies, as it allows a young specialist to become efficient, competitive and able to adapt to changing requirements of the labour market.

The aim of the research is to determine students' awareness of the necessary professional competencies of the professional standards for translators on the Latvian labour market, as well as to evaluate the opportunity for developing these competencies within the framework of the English philology Bachelor's degree programme at the University of Latvia.

Methodology

Qualified specialists in the field of English philology are in demand in the Latvian labour market. At the same time, every year the University of Latvia trains more and more young specialists. English philology programme at the University of Latvia is an academic programme, however, many students who have received Bachelor’s degree do not continue their studies, preferring to search for a job after receiving their first diploma. The Bachelor's degree programme includes 38 subjects, such as English Normative Grammar, Basics of Translation Theory, Translation Seminars, Lexicology and Stylistics, and many others, which are meant to form professional skills and competencies required by a translator. The list of translator competencies studied in the article corresponds to the content of the official Latvian Standard for Translators.

In the period from January 15, 2020 to February 8, 2020, the author conducted a survey of 43 Bachelor English philology students at the University of Latvia, aged 18–24, and six experts who are professional translators, aged 40–66, and who have at least eight years of experience. The data was collected through questionnaires using Google. The author applied closed-type questions with an assessment on a five-point Likert scale. Frequency analysis method (arithmetic average and median value, as well as percentage values) was used to analyse the collected data, and non-parametric method was used to compare average values (Mann-Whitney U-test). All calculations were made in the SPSS programme.

Results

In the period from January 15, 2020 to February 8, 2020, the author conducted a survey of 43 Bachelor English philology students at the University of Latvia, aged 18–24.

The majority of respondents are first-year students who comprise 38% of the total number of respondents. The fourth-year students comprise 8% of the total number of respondents.

As a result of the survey, it was determined that the majority of students who participated in the survey, that is 58%, do not work at all, 36% work but not in their future speciality, and only 6% of the respondents indicated that they already work in their speciality.

The author also conducted an expert survey, which included six professional translators with work experience of at least eight years, aged 40–66 years.

The research identified the most important subjects according to students' and experts' opinion.

As it can be seen in Fig. 1, there are shown arithmetic means of each subject, students consider "English Normative Grammar" to be the most important subject in the English Philology programme, but the experts believe that the list of important subjects, which form professional skills, should be wider. For example, in addition to "English Normative Grammar", the experts mentioned such subjects as "Linguistics of the English Language", "English Normative Phonetics and Phonology", "English Spoken and Written Communication", and "Basics of Translation Theory". Some of the courses that the experts noted as very important were considered by students to be unimportant (see Fig. 1 and 2). Based on the abovementioned information, it can be concluded that students do not have a complete understanding of the subjects that they will need in future at their workplaces.

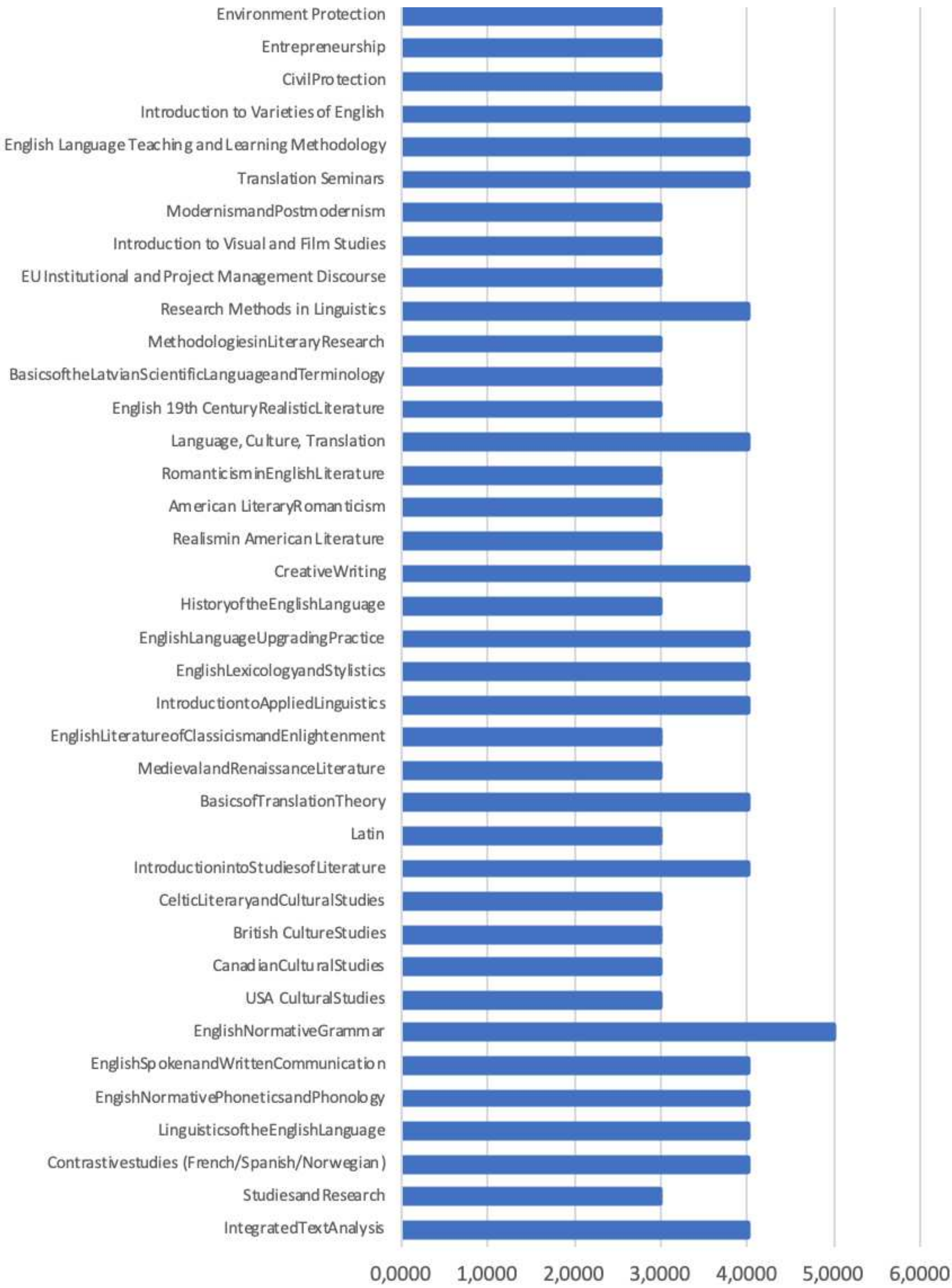

Fig. 1. **Students' assessment of the importance of subjects for future professional activities (median values)**

Source: author's calculations in the SPSS programme based on the survey data

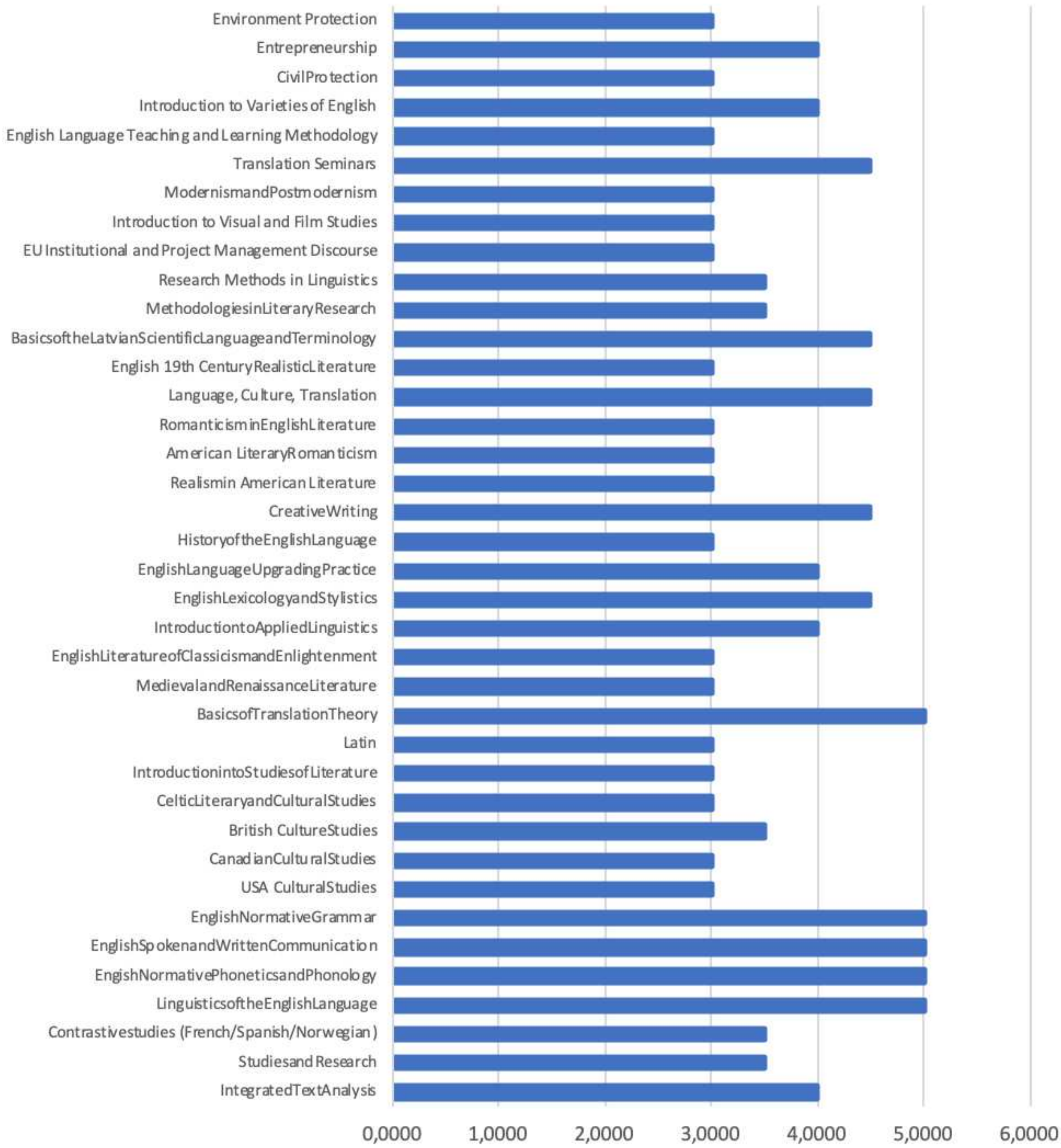

Fig. 2. **Experts' assessment of the importance of subjects for future professional activities (median values)**

Source: author's calculations in the SPSS programme based on the survey data

However, according to the students' opinion, the list of important subjects is quite large. Such disciplines as "Introduction to Literary Studies", "Basics of Translation Theory", "Introduction to Applied Linguistics", "English Lexicology and Stylistics", "Practice of Improving English", "Creative Writing", etc. were mentioned. Since the students lack professional experience, they cannot accurately identify subjects as important or less important ones. While the experts draw the list of five most important subjects. Therefore, the research has determined that students underestimate the importance of knowledge in many subjects for their future professional career.

Table 2. **Degree of importance of subjects in the opinion of students and experts**

Students' choice	**Experts' choice**
1. The most important subjects:	
English Normative Grammar	Linguistics of the English Language; English Normative Phonetics and Phonology; English Spoken and Written Communication; **English Normative Grammar**; Basics of Translation Theory
2. Important subjects:	
Introduction to Studies of Literature; Basic of Translation Theory; Introduction to Applied Linguistics; **English Lexicology and Stylistics**; English Language Upgrading Practice; **Creative writing**; **Language, Culture, Translation**; Research Methods in Linguistics; **Translation Seminars**; English Language Teaching and Learning Methodology; Introduction to Varieties of English	**English Lexicology and Stylistics**; **Creative writing**; **Language, Culture, Translation**; Basics of the Latvian Scientific Language and Terminology; **Translation Seminars**

Source: author's calculations in the SPSS programme based on the survey data

However, given the size of the sample, it is necessary to check whether the established difference in the assessment of subjects by students and experts is statistically significant. To do this, Mann-Whitney U Test was used. Statistically significant differences were identified in assessing the importance of subjects between the students and the experts in the following subjects:

1. English Normative Phonetics and Phonology (Me (stud.) = 4, Me (exp.) = 5, p-value = 0,012<0,05);
2. English Spoken and Written Communication (Me (stud.) = 4, Me(exp.) = 5, p-value = 0,019<0,05);
3. Introduction into Studies of Literature (Me (stud.) = 4, Me(exp.) = 3, p-value = 0,038<0,05);
4. Basics of the Latvian Scientific Language and Terminology (Me (stud.) = 3, Me(exp.) = 4,5, p-value = 0,038<0,05).

In other subjects, a tendency of statistically significant differences (0,05<p-value<0,1) was identified:

1. Realism in American Literature (Me (stud.) = 3, Mean (stud.) = 3,36, Me(exp.) = 3, Mean (exp.) = 2,5, p-value = 0,05<0,1 - tendency)
2. American Literary Romanticism (Me (stud.) = 3, Mean (stud.) = 3,23, Me(exp.) = 3, Mean (exp.) = 2,5, p-value = 0,097<0,1 - tendency)

3. English 19th Century Realistic Literature (Me (stud.) = 3, Mean (stud.) = 3,3, Me(exp.) = 3, Mean (exp.) = 2,5, p-value = 0,067<0,1 - tendency)
4. EU Institutional and Project Management Discourse (Me (stud.) = 3, Mean (stud.) = 2,8, Me(exp.) = 3, Mean (exp.) = 3,7, p-value = 0,079<0,1 - tendency).

Perhaps, in a larger sample, the difference in the students' and the experts' assessment of subjects would be more significant.

Assessment of the degree of importance of certain abilities of the professional standard for translator by students and experts has been provided.

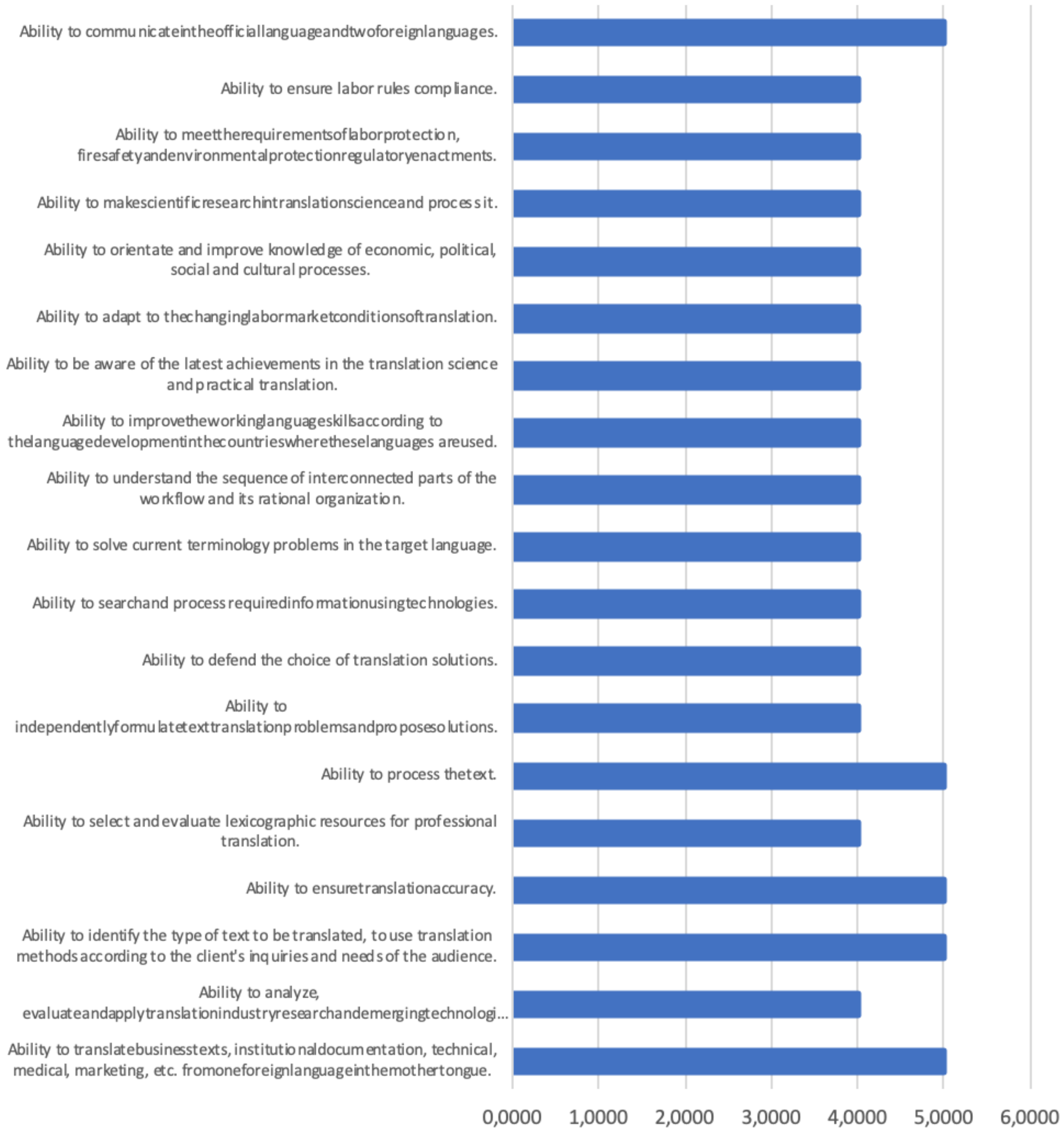

Fig. 3. **Students' assessment of the importance of abilities for future professional activities (median values)**

Source: author's calculations in the SPSS programme based on the survey data

According to the students, the most important abilities are: the ability to translate business texts, institutional, technical, medical, or marketing documentation, etc. from one foreign language into the mother tongue; the ability to communicate in the official language and two foreign languages; the ability to identify the type of text to be translated, to use translation methods according to the client's inquiries and needs of the audience; the ability to ensure translation accuracy; the ability to process the text (see Fig. 3).

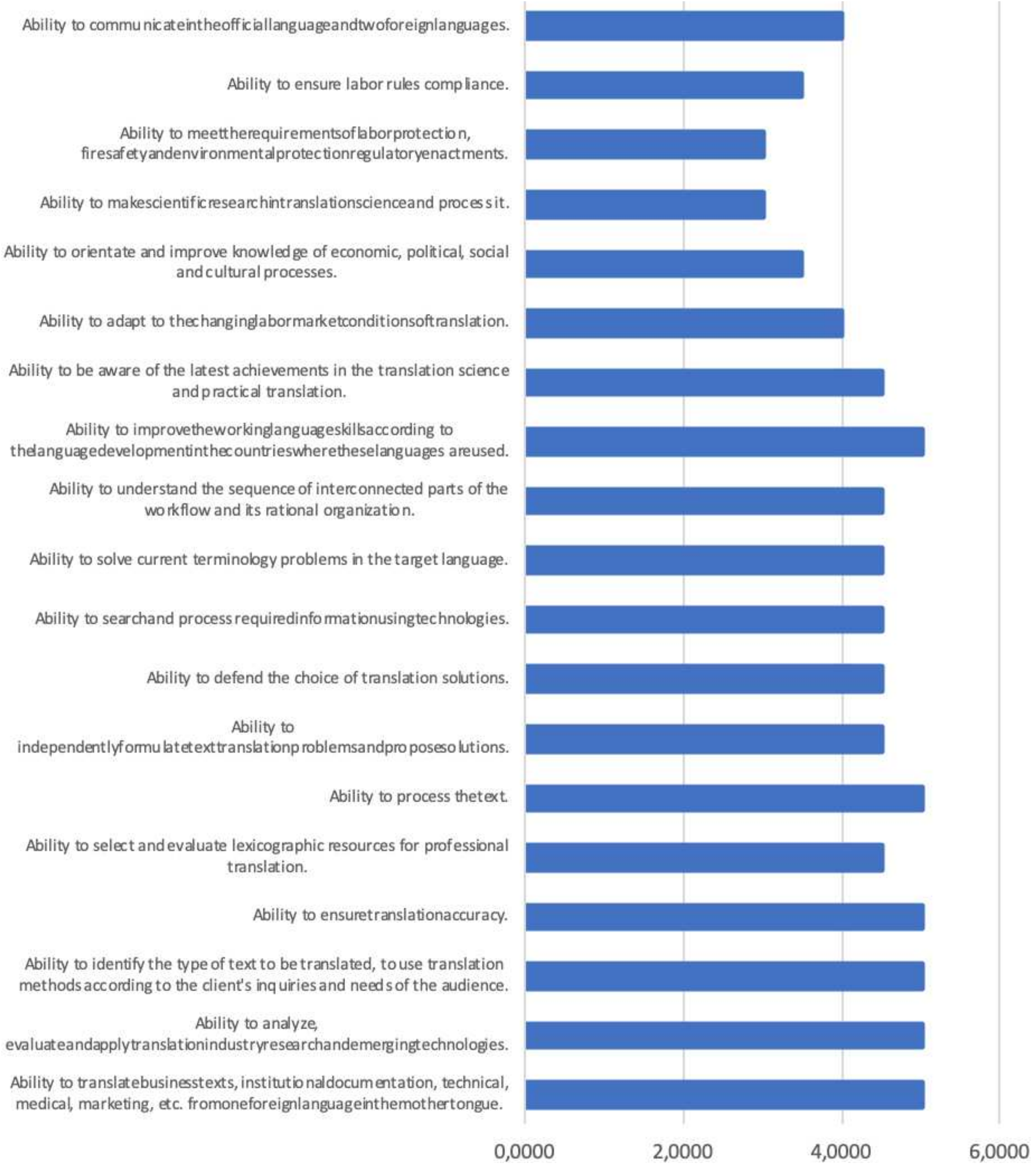

Fig. 4. **Experts' assessment of the importance of abilities for future professional activities (median values)**

Source: author's calculations in the SPSS programme based on the survey data

Experts believe that the most important abilities for a translator are: the ability to translate business texts, institutional documentation, technical, medical, marketing, etc. from one foreign language into the mother tongue; the ability to analyse, evaluate and apply translation industry research and emerging technologies; the ability to identify the type of text to be translated, to use translation methods according to the client's inquiries and needs of the audience; the ability to ensure translation accuracy; the ability to process the text; the ability to improve the working language skills according to the language development in the countries where these languages are used (see Fig. 4).

Table 3. **Degree of importance of abilities according to students and experts.**

Students' choice	Experts' choice
The most important abilities:	
Ability to translate business texts, institutional documentation, technical, medical, marketing, etc. from one foreign language in the mother tongue; Ability to communicate in the official language and two foreign languages; **Ability to identify the type of text to be translated, to use translation methods according to the client's inquiries and needs of the audience**; **Ability to ensure translation accuracy**; **Ability to process the text**	**Ability to translate business texts, institutional documentation, technical, medical, marketing, etc. from one foreign language in the mother tongue**; Ability to analyse, evaluate and apply translation industry research and emerging technologies; **Ability to identify the type of text to be translated, to use translation methods according to the client's inquiries and needs of the audience**; **Ability to ensure translation accuracy**; **Ability to process the text**; Ability to improve the working language skills according to the language development in the countries where these languages are used

Source: author's calculations in the SPSS programme based on the survey data

In the students and the experts' opinions, important abilities coincide in many respects, although the list of the most important abilities mentioned by the experts is wider. Despite the difference in the median values in assessing the importance of translation skills by the students and the experts, this difference is not statistically significant (Mann-Whitney U Tests, p-value>0.05).

Conclusions

In the framework of the research, the author assessed the importance of certain professional competencies of the translator standard in Latvia. English Normative Grammar, English Lexicology and Stylistics, Creative writing, Language, Culture, Translation, Translation Seminars were recognized as the most significant fields of knowledge. The most demanded abilities in the labour market of translators are: the ability to translate business texts, institutional documentation, technical, medical, marketing, etc. from one foreign language into the mother tongue, the ability to identify the type of text to be translated, to use translation methods according to the client's inquiries and needs of the audience, the ability to ensure translation accuracy, the ability to process the text. The list of significant and demanded abilities and knowledge on the labour market for translators, according to the students, is shorter than the list put forward by the experts.

There are statistically significant differences in the students' and the experts' evaluation of the Bachelor's programme content and the level of importance of the following subjects:

the experts attach more importance to the knowledge of English Normative Phonetics and Phonology, English Spoken and Written Communication, Basics of the Latvian Scientific Language and Terminology, EU Institutional and Project Management, but the students themselves overstate the importance of knowledge of Introduction into Studies, Realism in American Literature, American Literary Romanticism, English 19th Century Realistic Literature.

Basing on the findings of the research, the University of Latvia may analyse the content of the study courses in order to consider making adjustments to the programme (as well as increasing the number of contact hours) in order to improve the development of the skills that are recognized as the most significant ones by both students and experts.

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MĀKSLA / ART

THE URBAN DEVELOPMENT OF FOUR-PART LAYOUT MEDIEVAL TOWNS OF RIGA AND LEMSAL

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Abstract

The urban development of four-part layout medieval towns of Riga and Lemsal

Key Words: *city planning, four-part layout medieval town, Lemsal, urban development, Riga*

In Western Europe, the crusades were expanded in the 12th century to preach the Catholic Faith and to establish new feudal states. Fortified towns at road junctions, where the crossing point of two highways was a natural meeting-place for trade might occur, got a functionally justified four-part layout similar to Jerusalem, where the Church of the Resurrection in the orthogonal intersection of the Cardo and the Decumanus situated. Lands on the Baltic Seacoast inhabited by the Balts and Finnish-Ugrian tribes came under the authority of the Pope and Emperor of the Holy Roman Empire. Catholic church-states or bishoprics were founded. Western European cities organized around the church and the marketplace at the centre became a model for urban planning in the newly established Bishopric of Riga. At the beginning of the 13th century, the wall-fortified small semi-circular area of the German town of Riga adjoined the Rīdziņa River and became the main military-economic base for the Baltics' expansion and the most important commerce and spiritual power centre. The administrative structure and ownership of the most valuable land plots in a medieval town of the four-part layout at the junction of important traffic routes was the same as in other distant merchants' cities in Europe. **Research goal**: analysis of four-part layout medieval towns of Riga (Latvian: *Rīga*, Livonian: *Rīgõ*) and Lemsal (Latvian: *Limbaži*) developed at junctions of important traffic routes. **Research problem**: the development of layout and the defensive system of the Riga Bishopric's early fortified towns have not been sufficiently studied. **Research novelty**: the Riga Bishopric's towns are analyzed in the context of Western European medieval urban planning traditions. **Research methods**: analysis of archive documents, projects and cartographic materials of medieval urban planning, the study of published literature, an inspection of buildings in nature.

Kopsavilkums

Viduslaiku Rīgas un Limbažu pilsētu četrdalījuma plānojuma attīstība

Atslēgvārdi: *četrdalījuma viduslaiku pilsēta, Limbaži, pilsētas plānojums, pilsētu attīstība, Riga*

Rietumeiropā 12. gadsimtā izvērsa krustakarus, lai sludinātu katoļticību un veidotu jaunas feodālas valstis. Divu sauszemes maģistrāļu krustojumi bija piemēroti tirdzniecībai, kas veicināja apdzīvotu vietu izaugsmi. Tās kļuva par nocietinātām pilsētam, kas ieguva funkcionāli pamatotu četrdalījuma plānojumu, kāds bija arī Jeruzalemei, kur Romas impērijas pilsētbūvniecības tradīciju ietekmē izveidoja divu perpendikulāru galveno maģistrāļu *Cardo Maximus* un *Decumanus Maximus* krustojumu, kura tuvumā atrodas Augšāmcelšanās baznīca. Baltijas jūras piekrastes baltu un somu-ugru cilšu apdzīvotajās zemēs tika izplatīta katoļticība, un Romas pāvests un Svētās Romas impērijas imperators ieguva teritorijas, kur dibināja bīskapijas. Jaundibinātajā Rīgas bīskapijā par pilsētplānošanai paraugu kļuva Rietumeiropas pilsētas, kur centra apbūvi organizēja ap baznīcu pie tirgus. 13. gadsimta sākumā Rīdziņas upei piekļāvās aizsargmūra ietvertas nelielas četrdalījuma plānojuma vācu pilsētas Rīgas pusapaļa teritorija, kas kļuva par galveno militāri ekonomisko bāzi vācu ietekmes paplašināšanai Baltijā un svarīgu starptautiskas tirdzniecības un garīgās varas centru. Administratīvā struktūra un īpašumtiesības uz vērtīgākajiem zemes gabaliem šajā četrdalījuma plānojumu viduslaiku pilsētā ar apbūves izkārtojumu ap nozīmīgu satiksmes ceļu krustojumu bija tāda pati kā citās tāltirgotāju pilsētās Eiropā. **Pētījuma mērķis**: analizēt viduslaiku Rīgas un Limbažu pilsētu četrdalījuma plānojumu ap nozīmīgu satiksmes ceļu krustojumiem. **Pētījuma problēma**: Rīgas bīskapijas agrīno nocietināto pilsētu apbūves izkārtojums un aizsardzības sistēma nav pietiekami pētīti. **Pētījuma novitāte**: Rīgas bīskapijas pilsētu plānojums analizēts Rietumeiropas viduslaiku pilsētplānošanas tradīciju kontekstā. **Pētījuma metodes**: viduslaiku pilsētplānošanas arhīva dokumentu, projektu un kartogrāfisko materiālu analīze, publicētās literatūras izpēte, apbūves apsekošana dabā.

Introduction

In the 11th–12th centuries, humans took place on a peninsula surrounded by the Daugava River and its ancient branch named Rīdziņa, and Riga village of two similar ethnic groups as the Daugava Livs and the Livs from Northern Courland in the 12th century began to form (Caune 2007: 258). The largest settlement located at the Rīdziņa River estuary where about 50 m wide Lake Riga formed a natural harbour used intensively for the ship berth during the 12th century. It made up footbridge laid on piles and directed from the shore to the middle of a river. The Livs settled embankment of the harbour had not yet been reinforced. The narrow strip at the Rīdziņa River estuary had the advantageous location and preconditions for the rapid growth of the pre-German settlement, which occupied area is unknown. In ancient times, waterways united people around and guided merchants on long journeys. At the end of the 12th century, Riga began to come forward as a marketplace (Caune 1985: 35, 37).

In Europe during the 11th – 12th centuries, most of the inhabitants were the Christians. In Western Europe, the decline of crusades settled in, and in the mid-12th century, the Pope of Rome and the Holy Roman Emperor had interest about regions inhabited by the Baltic tribes (Ose 2001: 22) and started by the mid-12th century to spread Christianity at the Balts' and the Baltic Finns' lands on the Baltic Southern Seacoast. Churches, monasteries, cities were founded for colonization, and church-states, or bishoprics were made. The Germans arriving in the foreign land of the Lower Daugava met the Livs not united in a common state. In the second half of the 12th century, the Germans well acquainted the Daugava River estuary, and soon they aimed to establish direct relations with merchants on the East Baltic Coast attracted by the prospect of profit and hoped to obtain goods at the lowest price without the brokerage payment. They needed to rake up river estuaries in the Baltic Sea to become intermediaries in international trade between Eastern and Western Europe. These motives determined their aggression in the Baltics and attempt to establish themselves in the mouth of the Daugava to control the lower reaches of the Lielupe, the Gauja and other Baltic rivers. Forces for larger military actions were too weak, and they called German feudal lords and the Catholic Church to help. German merchants brought by their ships soldiers and priests to the Baltic, materially supported them and themselves as soldiers participated in conquest actions (Feod. Rīga 1978: 36). The lands inhabited by the Balts and Finnish-Ugrian tribes came under the authority of the Pope and the Holy Roman Emperor. The Germans founded the inland town (German: *Binnenlandstadt*) of Riga and the castle town (German: *Burgstädten*) of Lemsal developed at junctions of important traffic routes.

Previous researches on the four-part layout medieval town of Riga: Catholic Priest Henricus de Lettis (around 1187–after 1259), using Archives of Bishop and the Canonical Chapter (German: *Domkapitel*), wrote the oldest and most widely written source in the history of Riga – "*Heinrici Chronicon Livoniae*" /the Livonian Chronicle of Henry/ (1224/1226, released in 1993) and its addition (1227) about events of 1180–1227 (Heinrici 1993) and activities of the Livonian Brothers of the Sword (German: *Schwertbrüder*). The first known Riga image was a panoramic view from the Daugava side made only in the 16th century. It was the drawing of the panorama of

Riga before 1547 submitted to Sebastianam Minsteri for publishing by the office secretary of Riga Town Council, poet, chronicler Hans Johann Hasentöter (also *Hasentödter*, around 1517–1586). The location of defensive walls and towers in the 1650 plan of Riga (German: *Der Plan der Stadt vom Jahre 1650*), made by the Bavarian Franciscus Murrer (German: *Stadtingenieur Franz Murrer*; 1609–1681), a medical doctor and fortifications engineer who married Rodenburg's daughter assisted him in his efforts to make the city more defensible, was first published by architect Dr Wilhelm Johann Carl Neumann (1849–1919) in his book "*Das mittelalterliche Riga*" /Medieval Riga/ (Neumann 1892). Topo-geographer Georg Braun (also *Brunus, Bruin*; 1541–1622) and cartographer Franz Hogenberg (1535–1590) compiled the 16th and 17th century plans of the most important cities in the world and Europe, including also the city of Riga. This collection was published in the edition "Cities of the World" (Braun&Hogenberg 2008). Artist Johann Christoph Brotze was the first, who paid the attention to fortifications of Riga, one of the most powerful defensive systems on the Baltic Coast, and described the defensive wall. Researcher of Riga antiquity, doctor Woldemar von Gutzeit (1816–1900) published the first significant research on Riga defensive wall in a local periodical. According to written sources, in 1861 he tried to track down the trace of the medieval defensive wall. In proceedings of "*Deutsche Gesellschaft für Geschichte und Altertumskunde zu Riga*" /German Society for History and Antiquities in Riga/, he in 1865 published an article on the reconstruction of the defensive wall route, in Riga plan graphically depicted routes of defensive walls of the Old Town and the New Town and provided information on medieval buildings of Riga. The oldest part of the 13th century defensive wall from the edge of the Daugava parallel to Jauniela and Zirgu Street he marked across the peninsula and also in the middle of quarters to the corner of Zirgu and Meistaru streets on the right bank of the Rīdziņa (Ose 2003: 204). Neumann participated in the creation of a monograph "*Riga und seine Bauten. Herausgegeben vom Rigaschen Technischen Verein und vom Rigaschen Architekten-Verein*" /Riga and its buildings. Published by the Riga Technical Association and the Riga Architects Association/ (1903) dedicated to the history and the development of construction and planning of Riga, became a team leader of restoration of the Riga Cathedral and published "*Der Dom zu St. Marien in Riga*" /St. Mary's Cathedral in Riga/ (Neumann 1912). The introduction gives a short geographical characteristic of Riga and an overview of the history of the city until early 20th century. Historian, teacher Constantin Mettig (1851–1914) published a book "*Geschichte der Stadt Riga*" /History of the city of Riga/ (Mettig 1897). Statistician, publicist Marģers Skujenieks (1886–1941) in the edition „*Latvija: zeme un iedzīvotāji*" /Latvia: Land and Population/ (Skujenieks 1922, 1927) included the urban history reviews, but researcher of antiquity Kārlis Apinis summarized the history of cities in his book „*Latvijas pilsētu vēsture*" /History of Latvian cities/ (Apinis 1931). Deputy Director of the Latvian Statistical Bureau Voldemārs Salnais (1886–1948) and statistician

Aleksandrs Maldups (1894–1965) published the issue „*Pilsētu apraksti*" /Descriptions of cities/ (Salnais&Maldups 1936) in three parts, which also includes information on the history and the development of Riga (Salnais&Maldups III 1936). German archaeologist, historian Dr Professor Clara Redlich (1908–1992) used for the first time evidence of archaeological excavations to reconstruct the planning of the German town of Riga, but the Riga City Board's collection of articles "*Rīga kā Latvijas galvaspilsēta*" /Riga as the capital of Latvia/ incorporated a description of the beginnings of Riga and Bishop Albert operation prepared by the teacher, historian Jānis Āberbergs-Augškalns (1878–1941) in 1932. Livonian villages, created before the German town of Riga was founded, were also mentioned in other historian works (Caune 1998: 77). Writer, historian Jānis Juškevičs (*Juszkiewicz*; 1886–1961) included pictures, descriptions and maps of ancient Riga in the book „*Vecā Rīga*" /Old Riga/ (1936) from the series „Jaunais zinātnieks" /The Young Scientist/, but cultural historian Jānis Straubergs (1886–1952) collated pictures, descriptions and maps of the Old town of Riga in six notebooks "*Rīgas vēsture*" /History of Riga/, of which the second part included information about the oldest plan of the city of Riga (Straubergs II 1937), and the book "*Vecā Rīga*" /Old Riga/ (Straubergs 1951) devoted to building monuments of Riga and the topography of its surroundings. Artists' works related to Riga have been included in the album "*Senā Rīga gleznās, zīmējumos un gravīrās*" /Old Riga in Paintings, Drawings and Engravings/ (Senā Rīga 1937) prepared by archaeologist, Dr Professor Francis Aleksandrs Balodis (1882–1947) and archaeologist Rauls Edmunds Šnore (1901–1962), but during the occupation, Dr Professor Hans Schröder republished this information in German in his edition "*Riga im Wandel der Zeiten*" /Riga through the ages/ (Schröder 1942). The history of Riga and its old churches wrote by journalist Hermanis Asars (1882–1942) has been published in the edition dedicated to Latvia anniversary "*Latvijas pilsētas valsts 20 gados*" /Cities of Latvia during 20 Years of the State/ (Straubergs 1938). German historian Dr Phil. Friedrich Wilhelm Benninghoven (1925–2014) in books "*Rigas Entstehung und der frühhansische Kaufmann*" (1961) and "*Der Orden der Schwertbrüder*: *Fratres milicie Christi de Livonia*" /The Order of the Swordbrothers: Fratres milicie Christi de Livonia/ (Benninghoven 1965) studied the early planning of Riga. Historian of architecture, candidate of art sciences, architect Jurijs Vasiļjevs (1928–1993) analyzed Livonian medieval urban planning and architecture (Vasiļjevs 1969, 1987). Architect Rita Zandberga (1929–1993) developed a doctoral dissertation "*Архитектурно-планировочное развитие средневековой Риги*" /Architectural and planning development of medieval Riga/ and studied the architectural-spatial development of medieval Riga (Zandberga 1971, 1974). Drawings created by Konrector (1768–1804) at the Riga Imperial Lyceum, German pedagogue, ethnographer, painter Johann Christoph Brotze (1742–1823) and descriptions have been published (1992–2007) in volumes „*Rīgas skati, ļaudis un ēkas*" /Views of Riga, people and buildings/ (Broce 1992), „*Rīgas* *priekšpilsētas un tuvākā apkārtne*" /Riga suburbs and immediate surroundings/ (Broce 1996) and „*Latvijas mazās pilsētas un lauki*" /Small towns and countryside of Latvia/ (Broce 2002, 2007). The Science Academy Honorary Doctor, architect Andrejs Holcmanis (1920–2009) in his book "*Vecrīga – pilsētbūvniecisks ansamblis*" /Old Riga – an Urban Ensemble/ (Holcmanis 1992) described the layout of ancient settlements and building from the urban point of view, summarized the history of the Old Town of Riga, emphasizing the special significance of the Riga Cathedral in the medieval urban planning and building. The essay of Riga history was published in the encyclopaedia "*Latvijas pilsētas*" /Cities of Latvia/ (Holcmanis 1999), but the team of authors created an issue „Vadonis pa 77 Latvijas pilsētām" /Guide to 77 Latvian cities/ (Placēns 2000). Archaeologist, academician, Dr Hab. Hist. Professor Andris Caune (b. 1937) informed on archaeological research in Latvian towns of the 13th–16th centuries (Caune 2014). He studied the construction of the oldest dwellings of the pre-German settlement in Riga (Caune 1985, 1998, Цауне 1984, 1989) and building traditions of German immigrants (Caune 1983, 1999), German town planning and its protection system (Caune 1992, 2000) and the Port of Rīdziņa. Dr Hist. Ieva Ose has studied masonry buildings of German immigrants (Ose 2001) and the route of defensive walls of the German town of Riga (Ose 2003). Architect, urban planner Mg Arch. Assistant Professor Silvija Ozola has studied in medieval cities differences between fortified building complexes built by brothers-knights from various military orders (Ozola 2018) and the architecture of fortified yards of the Livonian Brothers of the Sword and its influence on urban planning (Ozola Planning 2020), as well as described urban structures created for Bishop and the Canonical Chapter (Ozola 2020) and planning which includes cult buildings (Ozola 2019).

Previous researches on four-part layout medieval town of Lemsal: the essay about the history of the ancient town of Lemsal (Latvian: *Limbaži*) was published in books „*Latvijas pilsētu vēsture*" /History of Latvian cities/ (Apinis 1931) and „*Pilsētu apraksti*" /Cities descriptions/ (Salnais&Maldups I 1936), the encyclopaedia "*Latvijas pilsētas*" /Cities of Latvia/ (Iltnere&Placēns 1999) and „Vadonis pa 77 Latvijas pilsētām" /Guide to 77 Latvian cities/ (Placēns 2000). Information of the stronghold and the town has been included in the encyclopaedia "*Latvijas viduslaiku pilis, IV. Latvijas 12. gadsimta beigu – 17. gadsimta vācu piļu leksikons*" /Latvian Medieval Castles, IV. The lexicon of German Castles in Latvia, the end of the 12th–17th century/ (Caune&Ose 2004: 298–302) compiled by Professor Andris Caune and Ieva Ose.

Research goal: analysis of four-part layout medieval towns of Riga (Latvian: *Rīga*, Livonian: *Rīgõ*) and Lemsal (Latvian: *Limbaži*) developed at junctions of important traffic routes. **Research problem**: the development of layout and the defensive system of the Riga Bishopric's early fortified towns have not been sufficiently studied. **Research novelty**: the Riga Bishopric's towns are analyzed in the context of Western European medieval urban planning traditions. **Research**

methods: analysis of archive documents, projects and cartographic materials of medieval urban planning, the study of published literature, an inspection of buildings in nature.

The development of European four-part layout sacral and trading centres at the crossroads of traffic routes

In Jerusalem at the crossroads of two traffic routes (**Fig. 1**), eastwards the Temple Mount blocked the *Decumanus Maximus* orientated in an east-west direction, therefore the second main road pair was created over the *Cardo* subordinated to planning along the Tyropoeon Valley and the subordinated *Decumanus* north of the Temple Mount. North-south orientated 21 m width *Cardo Maximus* became the centre of economic activities, joined the New Church (*Nea Ekklesia*; 543) and the Church of the Anastasis (German: *Auferstehungskirche*; 325/326–335, destroyed in 1009), also the Church of the Holy Sepulchre (Latin: *ecclesia Sancti Sepulchri*, German: *Grabeskirche*, *Kirche des Heiligen Grabes*, Russian: *Воздви́жение Честнóго и Животворя́щего Креста́ Госпóдня*) or the Church of the Resurrection (**Fig. 2**) and finished at the Roman garrison camp where it crossed the *Decumanus Maximus* at the right angles. Schematic circular four-part map of Ancient Jerusalem (**Fig. 3**) shows two central roads in the shape of a cross, likely to represent the *Roman Cardo* and *Decumanus*. Thanks to the right angle crossing of the main streets, the city gave a four-part layout.

Medieval geography divided the world into three schematic parts: Asia, Europe, and Africa. A T-O map (orbis terrarum, orb or circle of the lands; with the letter T inside an O), also known as an Isidoran map, is a type of early world map that represents the physical world as first described by the 7th century scholar Isidore of Seville in his De Natura Rerum and later his Etymologiae. Jerusalem was depicted at the center and east was oriented toward the map top. The design had great religious significance, with the "T" representing the central Christian symbol of the cross and placing Jerusalem at the center of the world. The "T" also separated the continents of the known world – Asia, Europe and Africa. The "O" that enclosed the entire image, represented the medieval idea of the world surrounded by water.

Figure 1. Dutch engraver, cartographer, publisher ***Nicolaes Visscher I (1618–1679).* Fragment of a map with Bethleem and ancient Jerusalem at the crossroads of two traffic routes on a fragment of old color example of Visscher's map of the Holy Land, oriented to the West.** Map was included ***in an exeptional atlas by a Dutch cartographer and artist Frederik de Wit (***born Frederik Hendriksz***; 1630–1706) correctly called an Atlas Maior.*** 1659 (***Visscher*** 1659)

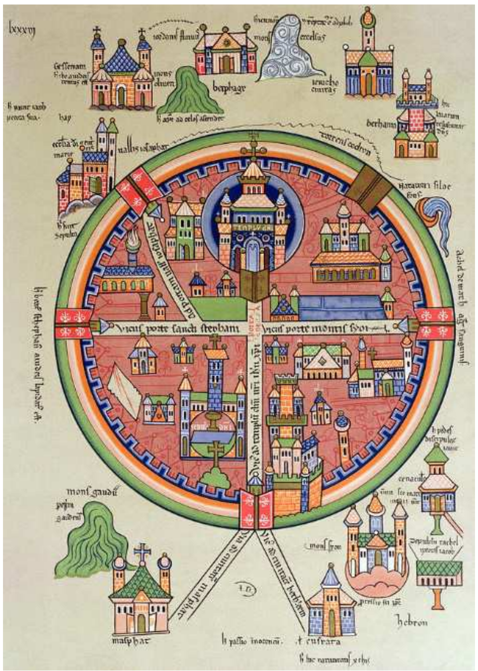

Figure 2. **French school. The 19th century drawing (colour litho) of a schematic circular four-part Medieval map of Ancient Jerusalem with sacred sites and the Temple of Solomon and Palestine.**
The chronicle of the First Crusade written between c. 1107–1120 by Robert the Monk (Robertus Monachus), a French prior, includes one of the Crusader maps of Jerusalem. (Robertus Monachus c. 1107–1120)

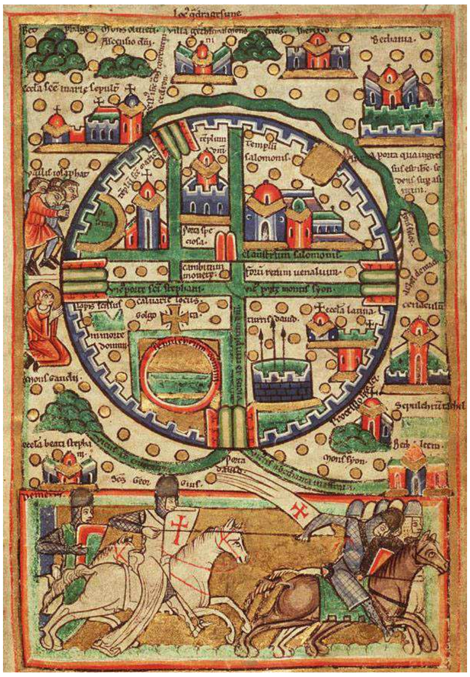

Figure 3. **The most famous circular map of Crusader Jerusalem from a picture Bible symbolizes the "ideal city".**
The Hague Map "Plan of Jerusalem" and the Knights of the cross, led by St. George, pursue the Saracens. Medieval Manuscript Fol. 1r sc. 1 & Fol. 1r sc. 2. About 1170. (Hague map 1170–1180)

In Arbon forests along shores of Lake Constance (German: *Bodensee*) in the vicinity of Zürich, Irish monk *Gallus* (*Saint Gall, Gallen*; around 550–646) built an oratory or public worship house (612/613, during archaeological research (1964–1966) of this site small fragments of a stone building were found) for a small community of monks and became Bishop of Constance. Priest Otmar (also *Othmar, Audomar*; around 689–759) was appointed the first abbot of the celebrated abbey of St. Gall (French: *L'abbaye de St. Gall*, German: *Fürstabtei St. Gallen*; 719, most monastic buildings were destroyed during the Reformation), and the monks' community was awarded by the *Regula Benedicti* in 747. The monastery became economically stronger. The Holy Roman Emperor confirmed the Imperial Immediacy (German: *Reichsunmittelbarkeit*) of the abbey (813), and it became the Imperial Abbey (German: *Reichsabtei*). A larger church was built and the library was expanded in the 9th century. Several renowned scholars chose to house the monastery. The Abbey of Saint Gall cooperated with the kings, gained privileges, economic independence and visibility in Europe, and flourished in the 10th century. On 26 April 937, the fire almost completely destroyed buildings of the abbey and a settlement, but the library remained untouched. Erecting of monastery defensive walls began around 954, but it was completed about 971/974. Highway and the settlement at the monastery were included in the fortified urban structure. In the 10th century, the settlement became the city of Sankt Gallen (also *St Gall*, French: *Saint-Gall*, Italian: *San Gallo*; 974), in which 1642 plan **(Fig. 4)** two significant streets side by side lead to the entrance in the gate tower built into the line of the defensive wall **of t**he fortified city guarded not only by seven gate towers but also corner and side towers. A street intersected both highways led along monastery walls to the Town Hall, behind which warehouses and commercial buildings enclosed an "elongated" marketplace oriented perpendicular. A church for the Catholic congregation of the townspeople was built at the square near the town wall, which trace coincided with an embankment of a ditch or the stream.

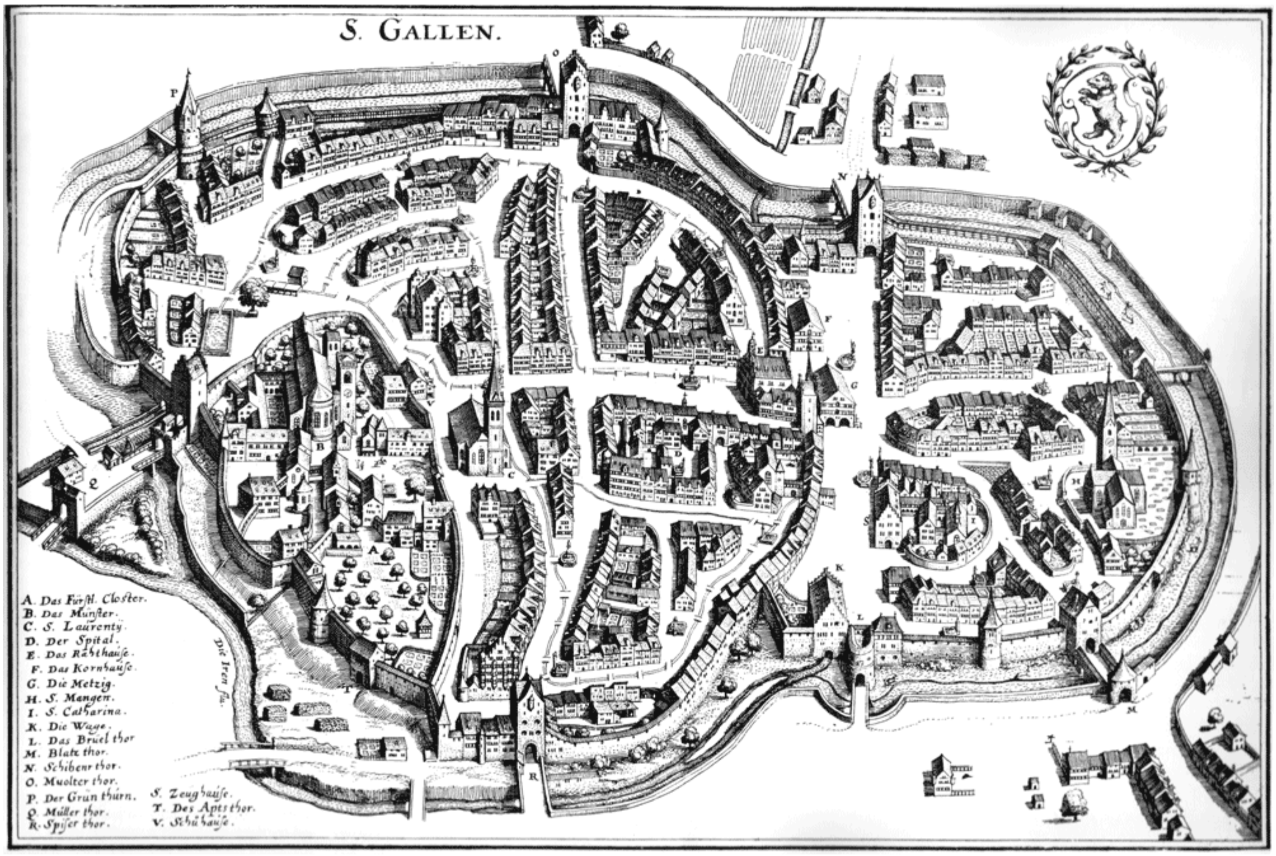

Figure 4. A Swiss-born engraver Matthäus Merian the Elder.
The four-part plan of Sankt Gallen (974): A – the Monastery Complex of St Gall (Das Fürβt. Closter), B – the cathedral (Das Münβter), C – *Saint Laurent* church (St Laurenty), D – the hospital (Der Spital), E – the Town Hall (Das Rathauβe), F – the grain house (Das Kornhauβe), G – the house (Die Metzig), H – the church of the Abbey of St Gall (S. Mengen), I – *Saint* Catharine church (St Catharine), K – scales (Die Wage), L, M, N, O – gates (Brüel Thor, Blatz Thor, Schibenr Thor, Muolter Thor), P – the Green Tower (Grün Thurn), Q – the Mill Gate (Müler Thor), R – the Spit Gate (Spiβer Thor), S – three-storey house (Zeughauβe), T – the gate (Apts Thor), V – house (Schühauβe). **1642.** (Merian 1642)

During the time between the fall of the Roman Empire until the beginning of the Renaissance, no great construction or development carried out. The feudal system was the new order, and its economy rooted in agriculture. Merchants and craftsmen formed guilds to strengthen their social and economic position. The church also the monastery and the castle of lords surrounded by a wall and a moat as defensive elements dominated in the early medieval town on terrain, occupying hilltops or islands. Towns assumed irregular character. In medieval towns, small, narrow streets without sidewalks led to the main square, which only in some cases located at the confluence of seven or eight streets connected in its corners. Façades of the Town Hall or the church closed street perspectives can be viewed at different angles. Expressiveness to the town square in road extension was given by the end façades of buildings built next to each other, but where traffic took place around the perimeter of the square, the architectural space was formed of buildings in a quarter from one corner of the street to the other. The understanding of logic in composition was felt in medieval urban complexes of different layouts. The choice of construction sites for castles, monasteries and cathedrals was justified by strategic, economic and aesthetic considerations. Symmetry was not used in the spatial composition: balance for the asymmetric arrangement of buildings around the square was found in a contrast relation between vertical towers and horizontal volumes. A complex ensemble of medieval fortresses, monasteries, cathedrals and squares was gradually created over a long period of time to achieve artistic harmony. The original idea was creatively developed by rebuilding old structures and supplementing them with extensions. Roads tended to radiate from the marketplace in the centre of towns toward neighbouring to the gates with secondary lateral roadways connecting them. Open spaces, streets, squares developed as an integral part of the site. Streets were used for a pedestrian while wheels were restricted to main roads. The medieval city grew within the confines of walls. While the population was small, there was space in the town, but when it increased, buildings were packed more closely and the open spaces filled. The result was intolerable congestion, lack of hygiene and pestilence. The medieval dwelling was conceived as an individual fortress.

In England, the seat of Bishop of Devon and ***Cornwall*** was transferred (1050) from Crediton to the site of the Roman Camp on the Exe River shore. The cathedral at Exeter, dedicated to Saint Peter, dates from 1050. The defensive wall, containing the North, East, South, West and Watergates, enclosed the town of Exeter (early 12th cent.), where Rougemont Castle, also known as Exeter Castle, located in the northern corner of the Roman settlement. Construction of walls of the *Castellum* began in or shortly after the year 1068. The fortified town of Exeter at the intersection of traffic routes, where a guildhall was erected, became a religious centre in the Middle Ages and got a plan divided into blocks (**Fig. 5**) (Braun& Hogenberg 2008: 434).

Figure 5. **The 16th century plan divided into blocks of the fortified city of Exeter with the castle and tke Market Square at the crossroads of two traffic routes** (Braun&Hogenberg 2008: 434)

Around the beginning of the 11th century, the early settlement on raised ground between the confluence of the Rivers Avon (south) and Frome (a tributary) was known as Brycgstow (Old English "the place at the bridge"). Bristol (also *Brighstowe*; 1155) was a flourishing port with mint at the beginning of the 11th century, but its origins and measure of planning that may have gone into its layout are still uncertain. The north-south road between bridges across the two rivers and a cross-cutting east-west road was the original foci for habitation, their names – respectively Broad Street/High Street and Corn Street/Wine Street – indicating their importance and the commercial character of the settlement. Bristol at the crossroads of two traffic routes had the almost circular course of the inner ring road, later replaced by a wall. The town with separate fortifications for its defence received a royal charter in 1155, and it got a plan independent from the ruler's residence (**Fig. 6**). The medieval town had four significant streets converging at the marketplace. The inner walls with the four gates – St. John's to the north, guarding the entrance from the Frome Bridge, St. Nicholas' gate to the south (the saints' names reflecting the addition of churches onto the gate structures) near the Avon bridge, St. Leonard's gate to the west giving access to the far end of the quayside along the Frome, and the New Gate on the east side near the Norman castle (built by 1088), which sealed off the land-based access to the peninsula formed by the two rivers and became the administrative centre for the earldom of Gloucester until 1175. By the end of the 13th century, large suburbs had developed in all directions of the compass, all but the northern one, where most of the major religious houses were established, was protected by new lines of walls. In the course of urban development, some townscape components designed on principles derived from theology may have been introduced into more towns than is immediately apparent.

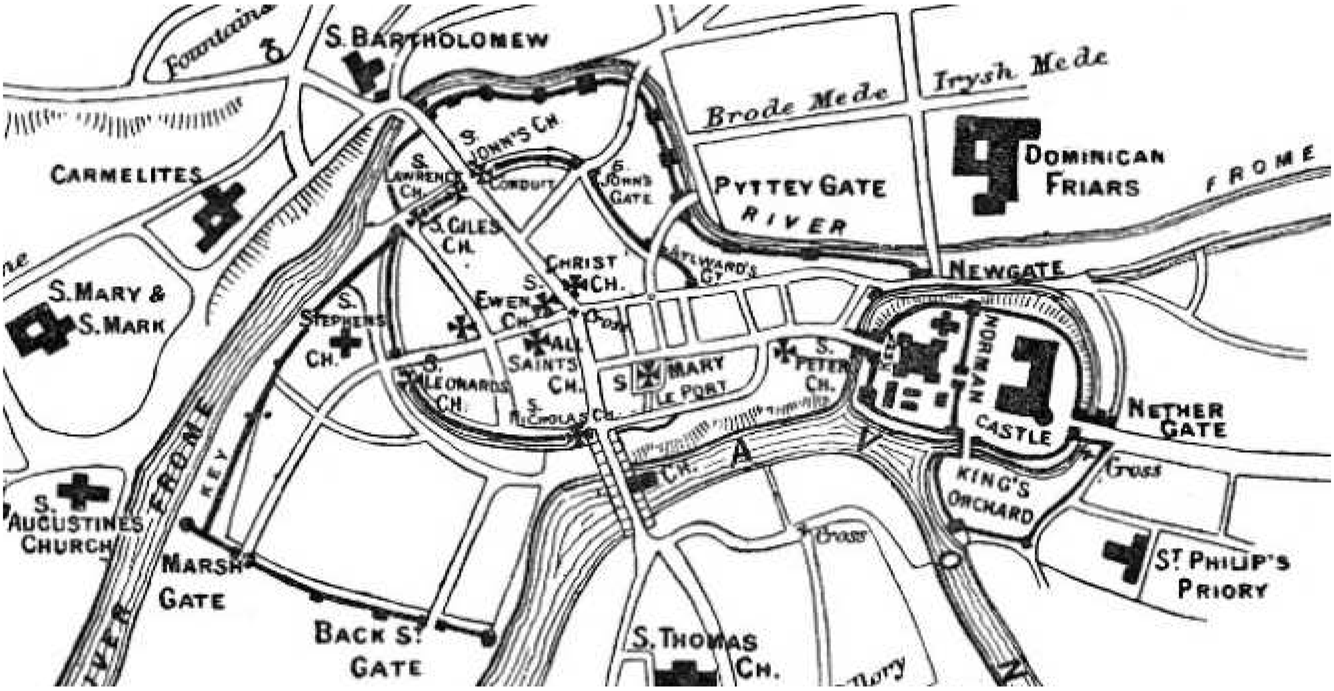

Figure 6. **Four-part plan of the fortified city of Bristol (1155) next to the castle in the 13th century. 1882** (Nicholls&Taylor 1882)

In the fortified city of Dresden (1206) established in the middle 12th century instead of a merchant settlement on the Elbe River, a Romanesque basilica dedicated to Saint Nicholas had existed at the southeastern corner of the Dresden market since the early 12th century, documented about 1168. In the 14th century, it was named after the patron of craftsmen and merchants and became the Church of Nicholas (German: *Nikolaikirche*, since 1388 *Kreuzkirche*). Due to its location on a slight rise above the flood-prone Elbe River, the New Market (German: *Neumarkt*; 13th cent.) was a square in the inner city of Dresden located between the Old Market and the Elbe and one of the first areas of the Old City of Dresden to be settled, with a small village arising around the old Frauenkirche, dedicated to Our Lady (German: *Kirche zu unser Liebfrauen*), Blessed Virgin Mary and first built in the 11th century in a Romanesque style, outside the city walls and surrounded by a graveyard. The Frauenkirche was the seat of an archpriest in the Meissen Diocese until the Reformation.

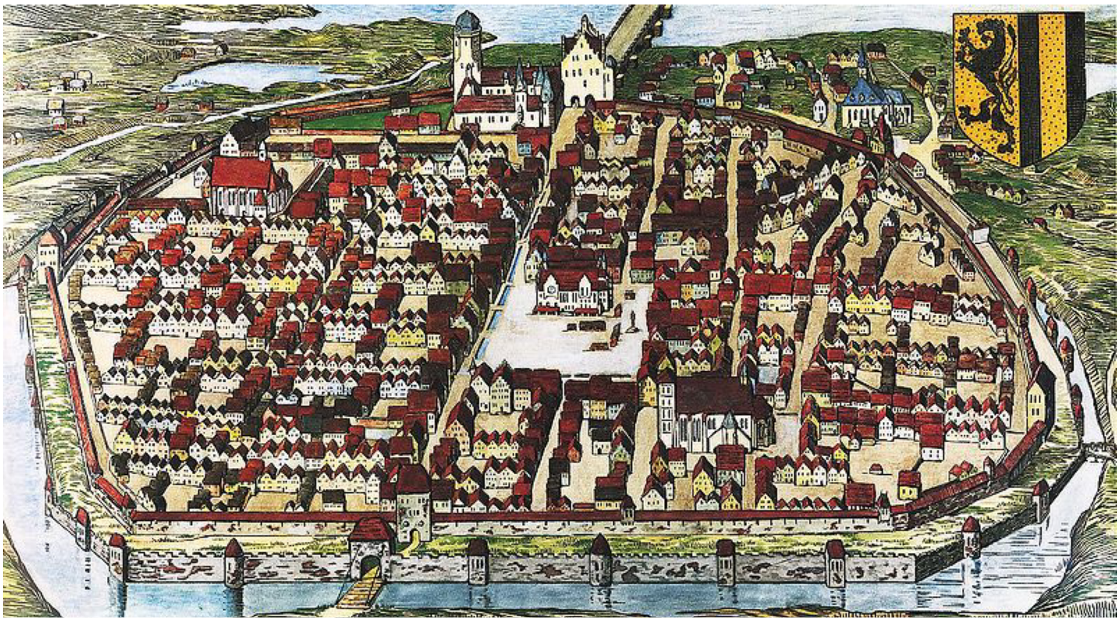

Figure 7. Dutch architect, urban planner and furniture designer Mart Stam (1899–1986). **Plan of the fortified city of Dresden (1206) with the Market Square in a natural meeting-place at the crossing point of two highways, where trade might occur, and the Town Hall in the centre of the city.** Drawing based on a wooden Dresden city model from 1521, which shows the city before it was repaired from 1519. (FD 2010)

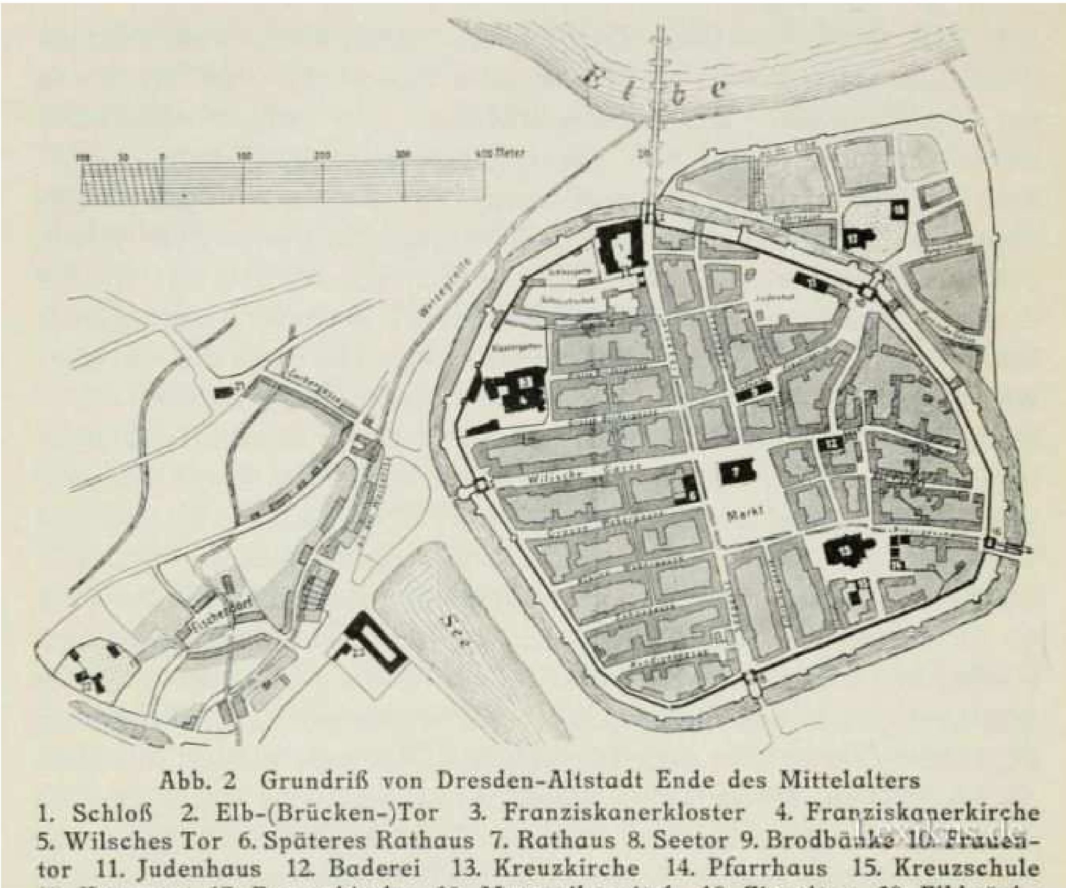

Figure 8. **Plan of the fortified four-part layout city of Dresden with the two main squares in the centre at the end of the Middle Ages** (Schumann 1909: 4)

Road traffic in the centre of Dresden intersected the second highway at right angles (**Fig. 7**) and created crossroads, where the Town Hall and the Chapel of the Cross (German: *Kreuzkapelle*) were built on the square near the Old Market (German: *Altmarkt*). Cathedral Square joined the Market Square (**Fig. 8**). In 1234, Constantia von Babenberg (1212–1243) laid the foundation stone for St. Cross Parish Church (*Kreuzkirche*; 1234), which became the main church (German: *Hauptkirche*) in Dresden. The town acquired a functionally based scheme of four-part planning was divided into quarters, but it was not decisive, because the interests of local craftsmen and merchants were paramount.

The foundation of the four-part layout inland town of Riga in the early 13th century

In the late 12th century, there was a vast field between both Livonian settlements of Riga in the eastern part of the peninsula, covered by waters of the rivers Rīdziņa and Daugava. Archaeologists, there have not found any older buildings. The third strong fortified *Domus Episcopi* (bishop's yard, curia, castle) on the Rīdziņa shore was built for Bishop seat in 1201. Bishop of Riga Albert erected the cathedral (burned on 4 March 1215) named after St. Mary (*ecclesia beate Marie*) mentioned for the first time in 1206. This edifice or its annexe (*monasterium*) housed the Cathedral Chapter or the Canonical Chapter (Caune 2000: 248) managed by Bishop’s brother, Dean of Convent (1202–1209) Engelbert of Buxthoeven from the Augustinian Abbey of Neumünster (1127) west of Lübeck. The first yard of Bishop of Riga, where already from the beginning there were masonry buildings (Caune 1999: 219), occupied the area from the current Jāņa Street to St. John’s (Latvian: *Jāņa*) yard including. In 1909, removing plaster from a wall on the east side of the choir of St. John's Church, part of an older building discovered. Archaeological excavations carried out in 1930 also indicate the location of the Bishop's palace. Remains of an old building, that began at the end of the altar of St. John’s Church and ended to a residential (?) tower at present *Kalēju* /Blacksmith/ Street, were found in basement construction of residential buildings on Jāņa Street. It is possible that fragments found were from the former Bishop's palace, which originally occupied the eastern part of the Bishop's yard (Vasiļjevs 1978: 420). Architect Neumann considered that in the reign of Bishop Albrecht, Riga was immediately enclosed by a 1,5 km long defensive wall (*murum civitatis*) of the town, but initially, construction of a moat, a rampart and palisades for fortifications across the peninsula began in 1201 and developed gradually. A building area increased, and palisades were transferred. On the western side of the first Riga Bishop’s fortified yard, the Knights ***u***nder the guidance of the first Master (German: *Herrmeister*) of the Livonian Brothers of the Sword (1202–1209) Winno of Rohrbach (Latin: *Vinnenus*, *Wenno*, *Wynno*) encouraged for military aggression against the Livs, built dolomite *Domus Wittenstein*, or St. Georgi (*sente Uriân*) fortified yard (1204, destroyed in 1297) that included a cult building.

In 1202, Engelbert brought the first German settlers came to Riga and settled on the right shore of the Rīdziņa (now west of present *Šķūņu* /Barn/ (former *Kurpnieku* /Shoemaker/) Street and *Skārņu* /Market huts/ Street), where along present *Kalēju* and *Meistaru* /Master/ streets and from *Jāņa* /John/ Street to *Zirgu* /Horse/ Street they started to build dwellings which layouts met in their homeland and in Lübeck (Vasiļjevs 1978: 420, 422). Structures of pillar-beam system pointed out the building type used by the earliest German immigrants next to log houses of the local population (Caune 2000: 258, 260, 262). German merchants bought the land from the Livs to monitor the Great Sandy Road, one branch of which led to Lake Riga and the other – to the marketplace. St. Peter's Church for the Catholic congregation of townspeople in Skārņu Street was built near the marketplace occupied the junction (**Fig. 9**), where a 4 m wide street started and led to the waterfront. A cross street branched from the other main street parallel to the Rīdziņa River (Цауне 1984: 13, 79). The fortified semicircle of the German settlement of Riga was not large and probably did not reach the Daugava waterfront. Archaeologist, Professor Clara Redlich found that earlier fortifications mentioned in "*Heinrici Chronicon Livoniae*" were wooden fences and earthen ramparts. Excavations (1938) in the Old Town of Riga confirmed that the German settlement protected by a ditch, small earthen ramparts and wooden palisade fences stretched along *Amatu* /Handcraft/ Street, *Tirgoņu* Street and *Kungu* /Lords/ Street, the southern edge of the square at St. Peter's Church and Jāņa Street. Present-day streets *Zirgu*, *Rozena*, *Krāmu* /Lumber/, Daugava, *Audēju* /Weavers/ and *Kalēju* included the town of Riga surrounded by earthen ramparts formed together with the earliest stone buildings. *Zirgu*, *Rozena*, *Tirgoņu* /Merchant/ (*Kopstate*), *Kungu* streets and *Jāņ*a Street formed a semicircle with a radius of about 175 metres (Caune 2000: 239–240).

The Riga semicircle area was divided by streets into four quarters (Vasiļjevs 1978: 422). Both yards occupied one of Riga quarters. Bridge over a 3–4 m wide ditch secured with wooden piles and torn planks located in the quarter between present-day *Mazā Smilšu* /Small Sand/ Street, *Mazā Zirgu* /Little Horse/ Street and *Lielā Zirgu* /Great Horse/ Street. *Monētu* /Coins/ Street and *Tirgoņu* Street continued to the marketplace and divided into two parts the quarter on the Daugava side (**Fig. 10**). Wooden houses behind St. Peter's Church were built on *Jāņa* Street and *Skārņu* Street. After the second big fire, stone dwelling-houses began to build following construction lines on *Grēcinieku* /Sinners/ Street (Caune 2000: 258, 260, 264). *Kaļķu* /Lime/ Street crossed at right angles *Skārņu* Street with its continuation *Šķūņu* Street, which from the central gate (*Porta Magna*) guided in the town. The Great Sandy Road behind the central gate provided Riga by road traffic. Construction of defensive walls of the town around the entire peninsula began after the formation of earlier earth fortifications. It seems also appears inside the embankment along the inner edge of the rampart on the opposite side of Zirgu Street to surround the town's small area stretched from *Jāņa*

Street to *Zirgu* Street and turned towards the Daugava River. This wall to the southeast from Krāmu Street was arranged parallel to Daugava Street. A remnant of the round tower basement, found on *Krāmu* Street in 1906, marked the continuation of the defensive wall on over two metres thick masonry basement in current *Rozena* and *Krāmu* streets. Preserved directions of streets *Zirgu*, *Rozena* and *Krāmu* shows the curve of the wall on a way to Daugava Street.

Figure 9. The leading fortifications engineer Franciscus Murrer (1609–1681).
Plan of the fortified fout-part layout German town of Riga. 1650 (Murrer 1650)

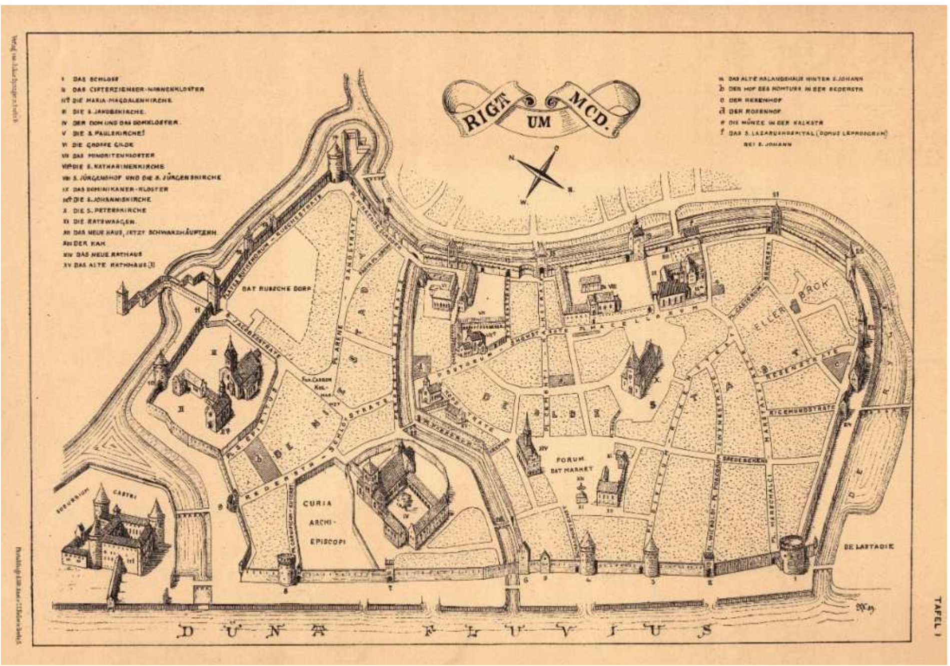

Figure 10. Architect Johann Wilhelm Carl Neumann (1849–1919).
Reconstruction plan of the fortified German town of Riga around 1400. 1889
(Schröder 1942: 57)

Friedrich Benninghoven creatively developed Neumann's idea of the original semicircle of the German settlement of Riga between *Zirgu* Street and *Audēju* Street and in 1961 created the reconstruction plan of the 13th century Riga (**Fig. 11**), where several yards on the Rīdziņa waterfront were built along the inner edge of the defensive wall. During Riga urban growth from 1201 to 1230, four yards behind each other, built along the road to Bishop, the Livonian Brothers of the Sword, Riga Canonical Chapter and merchants, formed later *Šķūņa–Skārņu* Street. Since 1233, Franciscans had already been in Riga (Ozola 2018: 82). Until about 1258, the Franciscans gained the yard of Riga Canonical Chapter and established a monastery on the site between present *Laipu* /Footbridge/ Street and *Amatu* Street. During archaeological excavations from 1959 to 1964, fragments of Franciscan monastery buildings, which have not yet been unearthed, and even older foundations under Saint Catherine's Church built in the second half of the 13th century were discovered. In the place of the Merchant's Yard, where the Large Guild House in the 14th century was built, on building's ground floor in 1965 was discovered a fragment of the stone wall of an older the 13th century structure here, before the guild house was built (Vasiļjevs 1978: 422).

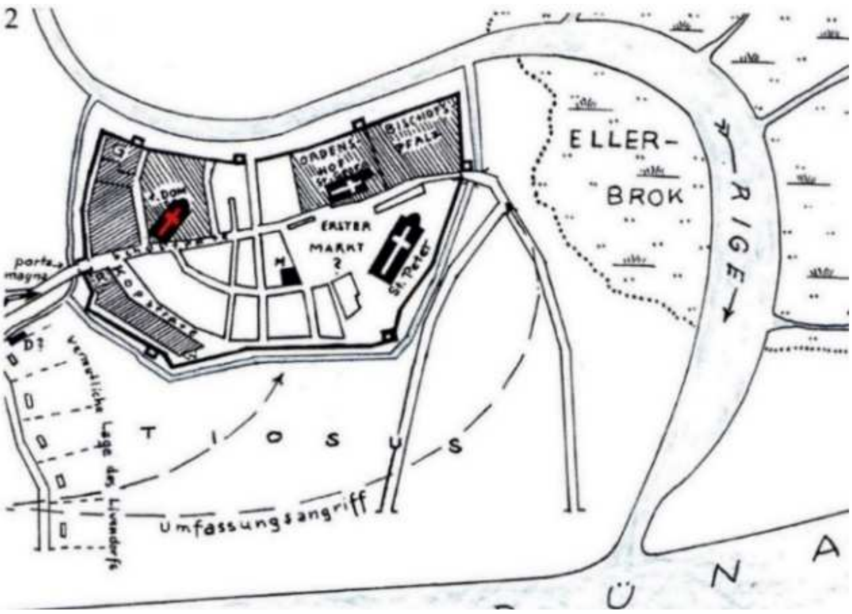

Figure 11. German historian Friedrich Wilhelm Benninghoven (1925–2014).
Reconstruction plan of the German town of Riga in 1210. 1961 (Caune&Ose 2010: 249)

The back of the area of the fortified semicircle of the German settlement of Riga clung to a natural water barrier of the Rīdziņa River, which shore shortly before or during the construction of defensive walls of the town began to fortify from *Smilšu* Street to its estuary without narrowing of the harbour. Bishop's oldest yard from the side of the Rīdziņa was protected by an 11-metre-high and 2,5-metre-thick defensive brick wall divided into two floors on the side of the town. It rose on above about 2,5 m deep dolomite stone foundation laid in lime mortar. In peacetime, deep vaults of the lower floor were used as warehouses, cart-houses, workshops. Above vaults, there was a passage for the defence of town's defenders, observed the surroundings of the town. Loopholes installed on the wall at shoulder height. The defensive wall of the town was uncovered in 1938 when a building built next to it was demolished. A fragment of the wall was reconstructed in 1960 (Vasiļjevs 1978: 421–423). After construction of the defensive wall along *Kalēju* Street, early strengthening performed on the Rīdziņa embankment to make it useful for unloading goods. More massive masonry foundations at the estuary protected the river shore from water damage (Caune 1992: 53). The other embankment was built, when the port had already been transferred to the Daugava and local river traffic ships and boats used the Rīdziņa estuary as a winter harbour (Caune: 1983, 88). The Germans could oversee both Livonian settlements and trade in the harbour (Vasiļjevs 1978: 420).

In Riga, the Germans established the centre of secular and spiritual power, a political and economic dual government and the main military base for expansion in the Baltics. German merchants intensified trade in Riga, an important trading centre in Eastern Europe established in accordance with German medieval urban traditions, and created defensive walls (Ose 2003: 210) mentioned for the first time in 1207, but it was raised in summer of 1208 (Straubergs 1951: 62) and in 1209. A monumental stone complex made up a centre building, and concentration of three competing power on a small plot of land proved to be problematic because armed conflicts turned out. Fortifications in front of the main entrance gate to the town and around the Old or the First Town (*prima civitas, prima pars civitates*) were mentioned in 1210 (Caune 2000: 235). Written sources "*Arnoldi Chronica Slavorum*" /The Chronica Sclavorum or Chronicle of the Slavs/ and "*Heinrici Chronicon Livoniae*" provided information on Riga since the first decade of the 13th century. Catholic Priest Henricus de Lettis (around 1187–after 1259), using archives of Bishop and the Cathedral Chapter, wrote "*Heinrici Chronicon Livoniae*" about events of 1180–1227 (Heinrici Chronicon 1993) and Livonian Brothers of the Sword. Archaeological excavations after World War II confirmed that medieval Riga formed by German immigrants in a strategically advantageous location next to Livonian village developed like many German cities with marketplaces instead of an older village, and in the early 13th century, German settlement interrupted the local craftsmen and merchant settlement development process into a typical Eastern European city (Caune 1985: 39, Цауне 1989). It was the beginning of a growth process for Riga appropriated by German and medieval European requirements. In the first decades, it was affected not permanent inhabitants, but distance sellers (German: *Fernhändler*) and visitors from Gotland, Lübeck and other German cities (Caune 2000: 239–240). Archivist Roberts Malvess, comparing the growth of Riga and medieval cities in Europe, concluded that distance selling played a crucial role in establishing of cities.

Supposedly, applying local dolomite ashlars, building outside the city's walls on the bank of the Daugava begun after St. Jacob's Day on 25 July 1211, when the place was consecrated (Ozola 2019: 54). Andris Caune assumes that in the first decades of the 13th century, immediately built defensive walls around the entire peninsula crossed it along the current *Zirgu–Rozena–Jauniela* route trace and included not only the new German settlement but also local villages (Ose 2003: 210). Architects August Reinberg (1860–1908), Wilhelm Ludwig Nikolai Bockslaff (1858–1945) and Hugo Riekstiņš also participated in research and fixation of the defensive wall of Riga.

The development of the four-part layout castle town of Lemsal during the 13th–14th centuries

The strategic highway from Riga led along the coastline of the Gulf of Riga through Metsepole County included in the Bishopric of Riga **and then** to Sakala County centres of Rūjiena Hill-fort at the Rūja River, Naukšēnu Kābele Hill (Turlajs&Kilups&Milliņš&Antēna 2012: 19) and important traffic centre with a wooden fortress on Viljandi Hill-fort, first-mentioned as *Falamus* in the commentary on the map of "*Tabula Rogeriana*" (1154) and a permanent settlement established in the 12th century at the foot of the hill. Livonian fortification *castrum Remin* (*Remyn*) located on an ancient warpath. A straight track, which roughly coincided with current Riga–Pärnu road (Heinrici Chronicon 993: 386), involved the Livs 10th–12th century fortified residential place of Lemisele (Livonian: *Lembsele*, *Lemeselle* /wide island in a forest swamp/, now in the modern city of Limbaži) on Ķezberkalns Hill (Turlajs&Kilups&Milliņš&Antēna 2012: 35, 254) at Lake Dzirnezers. Stream at the foot of the hill connected Lake Mazezers with Lake Dūņezers, from which the Svētupe River flows to the sea. Bishop Albert burned the Livonian village near Ķezberkalns and destroyed their fortifications. Declaring the Livonian centre as an important place from which to conveniently manage a wide area, he built his residence in 1223 next to the Livonian castle mound (Latvijas pilsētas 1938: 336). A settlement of merchants and craftsmen developed nearby (the early 14th century). It was coveted by the Teutonic Knights and taken away by the archbishop in 1318. The Archbishop of Riga regained Lemsal only around 1360 (Latvijas pilsētas 1938). Lemsal Castle for Bishop's Residence was built on the square plot surrounded by a ditch, over which northeast side (Vītola 1999: 264) a bridge led. An outer section of the castle at its outer walls was surrounded by palisades was created. There was a marketplace at the crossroads near the fortress and an economic centre developed. On 31 March 1385, Archbishop of Riga Johann IV of Sinten confirmed the previously granted rights of Riga law to the settlement (Šterns 1997: 49) created in the southeast of the fortress and the outer section (Caune 2014: 14), gave the land plot for further growth and ordered the city to fortify by ramparts, ditches and palisādes (Brikmane&Lūse&Nipāne&Noriņa I.&Noriņa R.&Plešs 2008). Privilege pointed out, that farmers who were mainly merchants (*koopmanne efte borger*), must live in the town of Lemsal. At the same time, the population was on the hill-fort, in the castle and its outer sections. The development of a concentric radial plan of Lemsal town **(Fig. 12)** was not dependent on the castle's position: from the marketplace, near which St. Lorenz (St. Lawrence) Church (14th cent.) dedicated to the patron of the town, preserver St. Lawrence, was built for the townspeople Catholic parish. One street led to the castle towards the Burtneck (Latvian: *Burtnieki*) Gate, the other – to the Wenden (Latvian: *Cēsis*) Gate, the third – in the southwest to the Riga Gate, and the fourth – in a westward direction out of the town (Bākule 2001: 147–148).

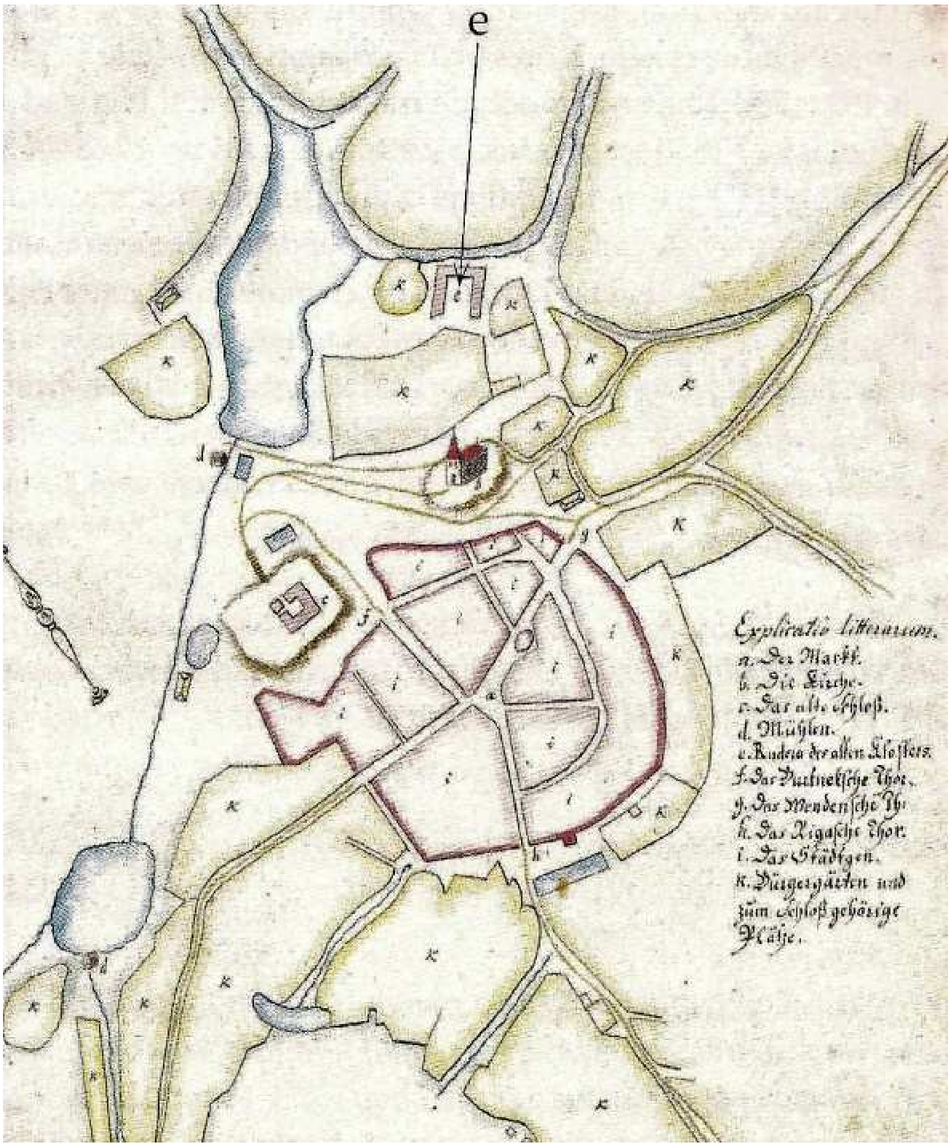

Figure 12. German pedagogue, artist, ethnographer Johann Christoph Brotze (1742–1823).
A copy of the four-part layout 1663 plan of Lemsal made by Johann von Sweinburg shows Bishop's residence near the town developed at the crossing point of highways
(Broce 2002: 299)

Land plots in Lemsal were divided into large yards. Two different fortification systems were created for the protection of Lemsal town and its eccentrically placed fortress (Vasiļjevs 1969: 177): strong protective walls of stone were mentioned in the document of 1385 and showed in Lemsal plan of 1663 (Caune 2014: 15).

Conclusions

1. Urban building and streets in the Bishopric of Riga (*diecese Rigensi*, *Rigensi ecclesia*; 1201–1255) and the Bishopric of Livonia (Latin: *Episcopatus Livoniensis*, 1207–1255) founded on Livonian populated lands were arranged under local natural conditions according to a four-part layout typology that included townscape components designed on principles derived from theology and developed in the context of the city of Jerusalem and was found in major diocesan centres in Western Europe.
2. The first yard of Bishop of Riga Albert at the intersection of traffic roads near the port was included in the fortified inland town of Riga formed a four-part layout on area protected by walls of a common defensive system and represented the symbol of religion. The fortified castle town of Lemsal developed autonomously from the location of the Bishop fortified residence and had also a four-part layout, which not only represented the symbol of religion but also acquired a functional role at the crossroads. The marketplace at the crossroads of earth roads and the waterway conformed the interests of traders, which were more important than the meaning of the symbol.

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SPECIFIC DEVELOPMENT OF SEGWOLD AND WENDEN FORTIFIED URBAN STRUCTURES CREATED BY THE LIVONIAN BROTHERS OF THE SWORD

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Abstract

Specific development of Segwold and Wenden fortified urban structures created by the Livonian Brothers of the Sword

Key Words: *castellum, fortified urban structures, Segwold, the Teutonic Order, Wenden*

The Teutonic Order, a corporation dominated by the lower German nobility, welcomed non-noble people and non-Germans, and had taken over the Dobrin Swordbrothers and its properties in 1235 and after the heavy defeat on 22 September 1236 in the Battle of Saule, took over the Livonian Swordbrothers and its first fortified secular power centres as Segwold (Latvian: *Sigulda*) and Wenden (Latvian: *Cēsis*) irregular fortified yards (Latin: *castrum*) at the significant trade road Riga–Pskov. On 12 May 1237, the Brotherhood of the German House of Saint Mary in Jerusalem in Livonia, an autonomous branch of the Teutonic Order for the subjugation of the Baltic tribes was formed by the support of Pope (1227–1241) Gregorius IX. The Livonian State (1237–1561) was established. Statutes of the Teutonic Knights determined that convents had to live in monasteries. Fortifications of the Swordbrothers were rebuilt. The quadrangular military complex (Latin: *castellum*) consisted of a defensive wall and four blocks around the courtyard. **Research goal**: analysis of Segwold and Wenden castles built in two chronologically different construction periods and its impact on the settlement planning. **Research problem**: it is necessary to understand the specifics of architecturally complicated construction of both fortified complexes. **Research novelty**: analysis of spatial development of Segwold and Wenden structures. **Research methods**: studies of archive documents, published researches, urban planning projects, cartographic materials and inspection of castles in nature.

Kopsavilkums

Livonijas zobenbrāļu celto Siguldas un Cēsu nocietināto pilsētbūvniecisko struktūru specifiskā attīstība

Atslēgvārdi: *Cēsis, kastela, nocietināta pilsētbūvnieciska struktūra, Sigulda, Vācu ordenis*

Zobenbrāļi laicīgās varas centriem Livonijā cēla nocietinātas neregulāra plānojuma sētas (latīņu: *castrum*) grūti pieejamās vietās. Pēc smagās sakāves Saules kaujā 1236. gada 22. septembrī viņu valdījumus un Siguldas (vācu: *Segwold*) un Cēsu (vācu: *Wenden*) cietokšņus pie Rīgas–Pleskavas tirdzniecības ceļa pievienoja Vācu ordenim, kas kopš pirmsākumiem bija korporācija, kurā dominēja vācu zemākās kārtas pārstāvji. Vācu ordenis uzņēma cilvēkus, kas nebija vācieši un nebija dižciltīgi, un 1235. gadā pārņēma arī Dobrinas zobenbrāļus un viņu īpašumus. Vācu ordeņa statūti noteica bruņinieku kopdzīvi klosteros. Ar Romas pāvesta (1227–1241) Gregorija IX atbalstu 1237. gada 12. maijā cilšu pakļaušanai Baltijā izveidoja autonomu Vācu ordeņa Livonijas atzaru (*Fratres de Domo Sanctae Mariae Theutonicorum Jerusalemitana per Livoniam*). Dibināja Livonijas valsti (1237–1561). Zobenbrāļu nocietinājumus pārbūvēja par varas centriem. Aizsargmūris un četri korpusi ap pagalmu veidoja četrstūra militāru kompleksu (latīņu: *castellum*). **Pētījuma mērķis**: analizēt divos hronoloģiski dažādos būvperiodos celto Siguldas un Cēsu cietokšņu arhitektoniski sarežģīto telpisko uzbūvi un ietekmi uz apmetnes izveidi. **Pētījuma problēma**: izzināt nocietināto kompleksu arhitektonisko specifiku. **Pētījuma novitāte**: Siguldas un Cēsu cietokšņu telpisko struktūru attīstības analīze. **Pētījuma metodes**: arhīvu dokumentu, pilsētplānošanas projektu un kartogrāfisko materiālu izpēte, publicēto pētījumu studijas, cietokšņu apsekošana dabā.

Introduction

In the past, economic considerations determined housing of the pre-German population. People could secure existence and communication using waterways and lived near rivers and lakes. The Gauja (461 km), one of the longest rivers on the territory of Latvia, and its tributaries created areas of contact between different ethnic groups. The Livs of the Finno-Ugric tribe settled areas west of the Gauja middle reaches to its mouth in the Gulf of Riga. The locals along the Gauja Waterway sailed from its mouth to Toreida (Latin: *Thoreida*, *Thoreyda*) or Treiden (Livonian: *Taara aed*, also *Tara aida*, Latvian: *Turaida*; 11th cent. – 1206), travelled to near and far places.

The Estonians of Finnish origin lived to the north of the Gauja. An ethnically mixed population developed in counties between lands inhabited by these tribes. An ancient Baltic tribe Latgalians and the Livs lived on banks of the Brasla River. The Latgalians and the Estonians settled north of Lake Burtnieks. The Livs and the Latgalians inhabited an area included in the Gauja and Daugava basins. Large economic centres lined up along banks of both rivers, which determined planning of ethnically diverse settlements.

Members of the Finno-Ugric and the Baltic tribes inhabited Ķente Hill-fort at the Daugava Waterway, because during the population time it had two functionally different plateaus (Stubavs 1976) and an ancient town (5/6–7th cent., ceased to exist around 800). Therefore, the fortification system radically changed three times. Initially, the smallest plateau was strongly fortified on the southside, and the natural terrain of the hill was considered suitable for protection. In the last stage of the population, the plateau on the northside became the main residence of inhabitants. The settlement at the western foot of the hill did not build as intensively as the eastern settlement (Bremša&Co 2004: 20). A strictly regular location of north-south or west-east oriented equally arranged structures along the outer slope of the hill formed building in the 8th century, and an undeveloped common area in the settlement centre was left that testified to settlement building traditions (Vasiļjevs 1969: 175). Wooden buildings burned down many times. The settlement destroyed in the 9th century was not rebuilt.

Changes took place in the choice of residence when livestock farming and agriculture prevailed in economic. People began to live in highland areas far from waterways. Economic activities developed nearby fortified settlements on hills and determined main directions of important traffic roads, also from Courland and Semigallia to Riga. The Balts during the Middle Iron Age (400–800 AD) established fortified settlements and permanent shelters on hills (Šterns 2002: 108). The importance of hill-forts increased. Economic activities developed in their vicinity, and outer sections of the fortress (Latvian: *priekšpils*, German: *Vorburg*) were created. The Semigallians had two significant, functionally different settlements. Its main political, military, administrative and craft centre on banks of the Svēte left tributary of the Tērvete River in Western Semigallia had three hills close to each other. Each one gave a functionally different meaning. One of the largest castle mounds in the Baltics was Tērvete Hill-fort (populated until the end of the 13th cent.) called Cukurkalns /Sugar Hill/ on the right bank of the Tērvete. An up to 8 m high earth wall, a moat and the outer forepart from the eastside guarded hill-fort, strongly protected by a hillside, a ravine and a water barrier, was a dwelling place for Semigallian duke (until 1230) Viestards or Viesturs (*Vesthardus*, *Vester*; ?–after 1229). A great plateau had fireplaces on its sides. A vast ancient town at the foot of the hill became an ethnically monolithic centre without a marketplace. A fortified settlement on Ķīķerkalns Hill (later Latvian: *Klosterkalns*) since the

1st millennium BC until the beginning of our era developed on the Tērvete left bank. The religious practice place was Svētkalns Hill (German: *Heiligenberg*, since the 17th century Zviedrukalns /Swedish Hill/) on the right bank (Lielais 2012: 146).

The first written information on an important Semigallian marketplace in Mežotne (9th–13th cent.) also Mežotene (*Medzothen*, *Masoten*, *Mezoten*) or Mežote (*Mesyote*, *Mesiothe*, *Mederothe*, *Medeiothe*, *Mesothen*) on the left bank of the Lielupe Waterway was found in 1154, when Arab scientist, geographer, cartographer Abu Abdullah Muhammad al-Idrisi al-Qurtubi al-Hasani as-Sabti, or simply al-Idrisi (Latin: *Dreses*; 1100–1165) created one of the most advanced medieval worlds maps in Arabic "Tabula Rogeriana" commissioned around 1138 by the Norman King Roger II of Sicily. In the book, each of seven climate zones (in keeping with the established Ptolemaic system) was sub-divided into ten sections and contains maps showing the Eurasian continent. Five of currently survived ten manuscript copies of "Tabula Rogeriana" have complete text and eight of which have maps. Two are in the Bibliothèque nationale de France, including the oldest, dated to about 1325. Another copy, made in Cairo in 1553, is in the Bodleian Library in Oxford. It was acquired in 1692. The most complete manuscript in Istanbul includes all seventy sectional maps and the world map. In the description of the world map, Madsūna (Latvian: *Mežotne*) in the schematically inaccurate northern part of Europe was described as a very large and people-rich ancient town. The Semigallian main fortification, economic and cultural centre was *castrum Mesiothe* (Mežotne Hill-fort or Viesturs Hill; 8th–13th cent., destroyed in 1272) created at least ten construction periods from the 9th to the 14th century on a promontory bounded on the east by a steep bank and on the north by a stream ravine. A settlement occupied a large area north, west and southwest to Wine Hill (Latvian: *Vīnakalns*) (Turlajs&Co 2012: 149), which may have been a fortified place of worship or an additional fortification. Mežotne Castle District was first mentioned in 1219. Historian, linguist, one of the beginners of Latvian ethnography and folklore research, a Lutheran pastor at Neu-Autz (Latvian: *Jaunauce*) and Doblen August Johann Gottfried Bielenstein (1826–1907) studied sites of settlements inhabited by ancient Baltic tribes, carried out excavations and first wrote about Mežotne Hill-fort in 1892. Archaeologists Dr Valdemārs Valdis Ģinters (also Ginters; 1899–1979) in 1938–1940, 1942 and Emīlija Brīvkalne in 1948–1949 and archaeologist of the Latvian Institute of History, Dr Hist. Māris Atgāzis in 1969 carried out archaeological research. An important earth road from Mežotne led to the Semigallian fortified settlement on Daugmale Castle Mound (Turlajs&Co 2012: 98) inhabited until the 10th century and the Port of Semigallia in the Lower Daugava on the waterway from the Greeks to the Varangians who ruled the state of Kievan Rus' between the 9th to the 11th centuries. The Semigallians, the Latgalians, the Livs and the Selonians lived along the Daugava provided between Eastern and Western countries better connections than earth roads.

Riga–Segwold–Wenden (this name has been mentioned in 1208)–Trikaten (Latvian: *Trikāta*)–Adsel (Latvian: *Gaujiena*)–Marienburg (Latvian: *Alūksne*)–Pskov highway to Kievan Rus' crossed Tuolova (Latvian: *Tālava*) County and connected important Latgalian centres of a different functional meaning and defensive system. The Latgalian elder Talibalds or Tālivaldis (Latin: *Thalibaldus de Tolowa*, *Thalibaldus de Beverin*; ?–1215) subordinated to Pskov (also *Plezcowe*, Estonian: *Pihkva*, Russian: *Псков*, Krivichean: *Пльсковъ*) ruled in the northern part of Tuolova, where many villages were around the Gauja to its left tributary of Vija River. The ruler's residence on a round plateau of Trikāta Hill-fort (Turlajs&Co 2012: 38) was separated from the outer forepart by a moat. An ancient town existed at the foot. A fenced complex of dwellings and outbuildings (the late 12th cent.) on Peka Hill (Turlajs&Co 2012: 37) south of the Abuls estuary in the Gauja located near the border of Trikāta Castle District. The urban complex of an ancient town, a temporary fortress on high Vijciema Celītkalns Hill-fort (Turlajs&Co 2012: 39), protected to the east by a rampart and a moat turned into a terrace, and a fortified outer part, formed by a wide moat on the northside redistributed the hill, developed on the bank of the Vija tributary of the Kamalda River at the eastern end of an elongated highlands and was not directly connected with significant traffic roads. Centres on the border of Tuolova would not be interconnected. Less important roads provided a link between other Tuolova districts.

The Wends, a small group of migrants driven by the Cours from the Liv-inhabited lower reaches of Winda (Latvian: *Venta*) River, arrived on the Gauja banks between the Latgalian and Livonian inhabited lands. The translation of *Wendeculla* /the village of the Wends/ (Latvian: *Vendu ciems*, *Vainguļciems*, *Vengulas ciems* or *Viņģelieši*) from the Baltic Finnish languages pointed the ethnic origin of the population living in Toreida and native language. Archaeologist, Doctor of Historical Sciences, Honorary Doctor of the Latvian Academy of Sciences Elvīra Šnore (1905–1996) in 1936 concluded that the Livonian tribe of Wends established a fortified *Wendorum castrum* (Apals 2007: 27) on round, slightly elongated Riekstu Hill (German: *Nussberge*) (Apals 1982, 2006) at the right edge of the Gauja River Valley in the beneficial place for trade. A settlement developed on the left bank of the Gauja between Tuolova and Ydumea counties. The road from Riekstu Hill in a straight line led to Trikāta Hill-fort in the centre of Tuolova connected with Rauna Tanīskalns Hill-fort in the geographical centre of Vidzeme (Livonian: *Vidūmō*). Most likely, the road from Celītkalns Hill led to Trikāta Hill-fort and further to the fortress (date back to the middle of the 1st millennium, existed until 1224) on Tarbata (also *Tharbata*, *Tharbete* or *Darbete*) Hill-fort by the Emajegi /Mother of water/ River in the Estonian lands. Russian chronicles say, that the Latgalians paid dues for the Slavs even before the Germans arrived, therefore, from the name "*Кесь*" (Livonian: *kest* /on the other side" of the Gauja/) given this place possibly comes the word "*Cēsis*" that occurred for the first time in the Livonian Chronicle of Henry. Latvian linguist, the founder of Latvian scientific linguistics and baltology, Dr Phil. (1912), academician (1946), Professor Jānis Endzelīns (1873–1961) studied the origin of "*Cēsis*" name (Endzelīns 1931). Other versions of this name – ***Venda***, ***Wende***, ***Winden***, ***Kec*** (in Russian), ***Kies*** (in Polish). Archaeologist, Honorary Doctor of the Latvian Academy of Sciences, Dr Hist. Jānis Apals (1930–2011) ***in the*** edition of the newspaper "***Druva***" June 21, 2006 published his research ***on the Wends (Apals 2007) and their living place on Riekstu Hill*** (Apals 1998). Beverina Road (*via in Baverin*), Memecule Road (*via Memeculle*), Vendeculla Road (*via Vendeculla*) and earth road from Lithuania, which crossed the Daugava and continued in the direction of Wenden and Pskov, were guarded during the war to prevent the enemy's attack (Mugurevičs 1961: 64).

Pastor Bielenstein published a well-founded typology of Latvian hill-forts in his article "*Die lettischen Burgberge*" /The Latvian hill-forts/, based on the report of the 10th Congress of Archaeologists in Riga in 1896. The founder of the Latvian National Archaeological Science, archaeologist Dr Professor Francis Aleksandrs Balodis (1882–1947) used this work and in 1928 developed hill-fort types, summarized results of archaeological research in collaboration „*Latvijas arheoloģija*" /Latvian archaeology/ (1926), to reconstruct material culture, buildings and settlements of ethnic groups of ancient Baltic peoples destroyed by the Crusaders and to identify locations of fortresses mentioned in chronicles. Archaeologists Francis Balodis and Elvīra Šnore pointed out that no ancient Latvian hill-fort, where a fortified settlement on the plateau would be fully explored. Dwellings of the nobles as luxurious residences have not been found because a noble dwelling on the plateau should not be understood as the castle but it was a hill fortification without monumental buildings (Šterns 2002: 107). During the Soviet era, archaeologist Dr Hist. Vladislavs Urtāns (1921–1989) studied hill-forts types. Archaeologist Ādolfs Stubavs (1913–1986) published an article on classification of hill-forts (Stubavs 1974), evaluated hill-forts types from the point of view of development possibilities, arranged them in a typological series depending on the complexity of the type, variant and the safety aspect of fortifications, analyzed the distribution of hill-forts in Latvia. He set out the form, the type of defensive system, the development and compliance of each type with strategic objectives of protection of hill-forts as a criterion. Hill-forts were not only military fortifications but also places of human life and economic activity, therefore, there are visible inconsistencies in the conformity of these functions. The hill-fort with a convenient entrance was the most suitable for the permanent residence of inhabitants. He schematically divided hill-forts into five main types: stand-alone, round or slightly elongated hills with a circular fortification system, cape-type hill-forts (also Ķente Hill-fort), stand-alone, elongated hills with the main embankment on the plateau and an entrance along the end of the rampart to the road on a slope (also Rauna Tanīskalns Hill-fort with one plateau), cliff-type hill-forts with a semicircular or horseshoe fortification system and a well-secured backline from nature (also Mežotne Hill-fort, Tērvete Svētkalns Hill with a forepart), highland corner fortifications (Sattesele Hill-fort, Tērvete Hill-fort, which probably also had another forepart). The typological analysis of Latvian hill-forts shows a complicated and in some aspects even contradictory development. He did not evaluate the functional significance of hill-forts and its impact on the diversity of solutions. It is the task of archaeologists and historians to fully reveal types and variants of hill-forts, their development and interrelation. Competence of architects in analysis of the location of settlements was not taken into account. Stubavs considered that the forepart as an essential part of the hill-fort can be typologically viewed together with a single complex of the mound, however, some hill-fort types had not natural conditions for further development according to new circumstances. An ancient town occupied a large area between Mežotne Hill-fort in the vicinity of oldest Wine Hill. The military potential of some countries increased simultaneously with the emergence of early state formations and contributed to develop defensive systems (Stubavs 1974: 76–80, 84).

Two important earth roads started in the lower reaches of the Daugava: one along the seaside northerly led to the Estonian coastal areas on the Gulf of Finland, while the other along the bank of the Gauja moved northeast, crossed Ugandi County, reached Pskov and Novgorod (Mugurevičs 1961: 73). At the end of the 12th century and the beginning of the 13th century on the Livonian lands, a permanent earth road traffic network existed and corresponded to the German Crusader interests in the Eastern Baltic (Apals 2002: 197–198, 210). The struggle for control of roads began with the appearance of German merchants in the Baltics in the 12th century. Archaeologist at the Latvian Institute of History, Professor Dr Hab. Hist. Ēvalds Mugurēvičs (b. 1931) studied important Livonian and Latgalian roads (Mugurēvičs 1961).

The first king of Rome *Romulus* (traditional dates 771–717 BC) created the reputed dwelling-place *Casa Romuli* on the southwest side of Palatine Hill (Latin: *Mons Palatinus*, *Collis Palatinus*) in Rome. Probably, the term "*Palatin*" was derived from the name of ancient Italian deity *Pales*. Not far from his native place Salona (now Split, Croatia) on the Adriatic Seacoast, the Roman Emperor (284–305) Gaius Aurelius Valerius Diocletianus (244–311) built the rectangular military urban complex surrounded by high defensive walls with fifteen towers – the Diocletian's Palace (Italian: *Palazzo di Diocleziano*; 295–305) called "*castellum*", which is a diminutive shape for a strong fortress "*castra*" or "*castrum*". Later rulers built castles-fortresses for their residences. In Venice city, got after 584 over the Ravenna Archbishoprics, a "*castellum*" for governmental institutions, ruler's apartments, courtrooms, a prison and stables was built, using for the example the Diocletian's Palace included in the Republic of Venice (Italian: *Repubblica di Venezia*; 697–1797). Since the 9th century, palaces began to be built in the royal sense: initially, it were wooden buildings, but later – stone and brick structures. The German name "*Stadtschloss*" marks the impressive residence of majesty but terms "*Palast*" and "*Schloss*" used for a great first-class secular building often overlaps. In languages of many nations, the word "*Palast*" became excellent housing's (Latin: *palatium* /palace/) synonymous and also was involved with dining rooms (German: *Speisesaal*). In cloisters, the space associated with *palatium* was emphasized. The term "palace" (German: *der Palast*, Spanish: *palacio*, Italian: *palazzo*, Franch: *palais*, Polish: *pałac*, Dutch: *paleis*, Catalan: *palau*, Swedish: *palats*) marks a representative medieval building or a fortified housing in the town. The term "castle" in German (*Begriffe Schloss* and *Palast*) and other languages is used differently: the word "*Palas*" makes out the castle's housing block but the word "*Pfalz*" means the royal or imperial palace. The word "*Pfalzgrafen*", also "*Paladin*" is applied for a short-term inhabited building used for meetings, guests' welcome and service. Historian Dr Ieva Ose explained the use of the term "*castellum*" and other terms in the research of Latvian historians and wrote that the Latvian word "*pils*" means a first-class wooden fortification on hill-fort of the locals, a medieval stone fortress and an unfortified modern residence. The historically introduced use these terms would be no need to change. It is unclear, why historians do not take into account findings on wooden building on plateaus of ancient Latvian hill-forts published by archaeologists Balodis and Šnore (Šterns 2002: 107). Diversity of German medieval fortifications and the significant number of written sources encourages the introduction of more precise terms in the Latvian language. Therefore, differentiated names should be further introduced in the scientific literature to denote residences and fortresses of various rulers. Some translated terms are localized and put into use (Ose 2001: 129). However, a translation of the term into Latvian would be necessary only for such medieval building types (an exact typology of medieval fortresses has not been developed in Latvia), occurring in the territory of Latvia (it seems that Latvian historians have not to interest on other building types that do not meet on the territory of Latvia). Scientific literature needs to develop designations. Ahaed of the introduction of such names to accurately classify castles by location, owners, shape, protection type and other features, more research should be carried out into the Livonian building genesis and typology (Ose 2001: 130). At the same time, historians consider the correct to use of historically introduced terms, which has become misleading nowadays, consistently ignore the influence of function and construction on shape and spatial solution of fortresses and architects' competence on the ancient building typology, considering functional meaning.

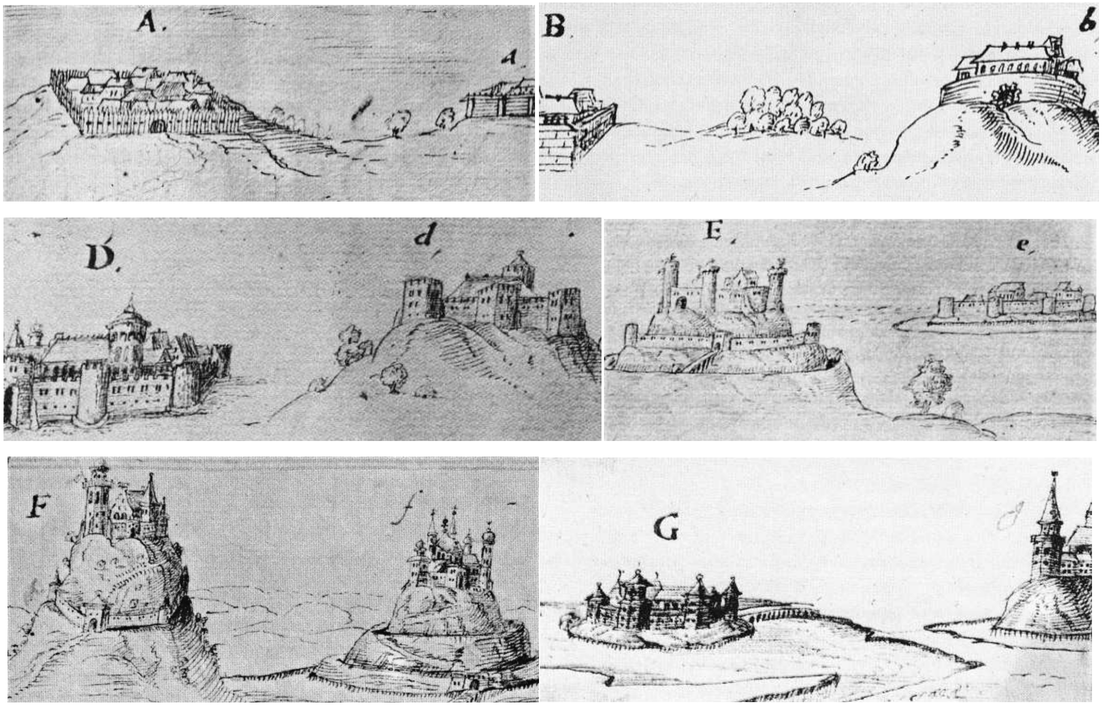


Figure 1. Cartographer, geodesist, mathematican, architect Józef Naronowicz-Narońsky (around 1610–1678). **Drawings of fortified military structures:** A – a settlement covered by a palisade, B – a settlement covered by a defensive wall, D – protection of a fortified building complex on a plain and on a hill, E – a fortified building complex on a hilltop and on a plain covered by water barriers, F – a fortified building complex with a relatively low defensive wall on the hilltop or serpentine road at the foot of the hill, G – a fortified building complex of complicated structure on the plain and on top of the hill. **1655–1659** (Guerquin 1984: 14–19)

Polish art historian, curator of the Gallery of Polish Painting at the National Museum in Warsaw, Professor Jerzy Sienkiewicz (1897–1980) at the University of Warsaw Library found in 1933 previously unknown manuscripts with drawings on military defensive systems and explanations (1655–1659) by cartographer, mathematician, geodesist, architect Józef Naronowicz-Narońsky (around 1610–1678) (Guerquin 1984: 12). Drawings of military buildings on the plain and on the hill showed wooden structures of the settlement enclosed by primitive defensive wooden fences and earth walls (**Fig. 1 A**) (Guerquin 1984: 14). Stone houses of settlements were protected by the defensive wall (**Fig. 1 B**) (Guerquin 1984: 15) and towers built into the line of the wall (**Fig. 1 D**) to observe surroundings and to ward off the enemy (Guerquin 1984: 16). The castle on the hill had high towers and a relatively low defensive wall. Water barriers and a high defensive wall with low bastions protected the castle on the plain (**Fig. 1 E**) (Guerquin 1984: 17). A low barrier at the foot of the hill guarded the castle of complicated structure on a hilltop (**Fig. 1 F**) (Guerquin 1984: 18). Fortified structures on plains and highlands had different defensive systems (**Fig. 1 G**) (Guerquin 1984: 19). A design of fortified structures became compact and regular (Guerquin 1984: 20), and fortification elements were included **in** the construction of fortresses (Guerquin 1984: 21).

On 6 February 1191, Pope (1187–1191) Clement III confirmed "Brotherhood of St. Mary's Teutones in Jerusalem" (Latin: *Fratrum Theutonicorum ecclesiae S. Mariae Hiersolymitanae*), established by monks, merchants and the Knights from Lübeck and Bremen arrived in Palestine during the third Crusade (1189–1192). On 19 February 1199 Pope (1198–1216) Innocentius III approved the name "Brothers and Sisters of the German House of St. Mary in Jerusalem" (Latin: *Ordo domus Sanctae Mariae Teutonicorum in Jerusalem*, German: *Brüder und Schwestern vom Deutschen Haus Sankt Mariens in Jerusalem*, also *Deutschherrenorden* or *Deutschritterorden*, abbreviated: *Deutsche Orden*; 1198–1525), and starting from the 13th century, German merchants included in journeys the South Coast of the Baltic Sea where took over trade, initiated significant territorial changes, formed fortified settlements at the most important destinations and interspaces and implemented in Riga administration according to German example. Land conquest and the political situation at the turn of the 12th and 13th centuries contributed construction of stone fortresses in the context of the ethnopolitical situation of the previous era. Librarian from Riga, Dr Phil. Karl/Carl Woldemar von Löwis of Menar (1855–1930) and Professor Dr Friedrich Bienemann (1838–1903) made significant contribution in studies of cultural monuments (*Düna Zeitung*, 11 September 1903) became the basis for the first tourist guidebook with illustrations and plans of Segwold and Wenden castles (Löwis&Bienemann 1895, 1909, 1912a, 1912b). Architect Wilhelm Johann Carl Neumann (1849–1919) published stands, façades, plans of medieval castles in the first essay on art history of Livonia, Estonia and Courland from the late 12th century up to the late 18th century, in the Baltics for the first time defined construction periods of Livonian castles and described features of architectural styles (***Нейманъ*** 1893). Karl von Löwis of Menar compiled his studies on castles in Livonia (Löwis 1902–1903; Löwis 1919 Nr. 4 and Nr. 5). Professor Mugurēvičs classified wooden and stone fortifications, taking into account the environment of its location, and created five groups, evaluating the relationship of medieval fortresses with habitats (hill-forts, villages, settlements) of the previous period. The first group included fortifications where the locals lived after the German Crusader invasion in the 13th and 14th centuries, the second group included local fortifications managed for some time by invaders in the 13th century but later recovered, the third group included German fortresses built on local fortifications, the fourth group included German fortresses built-in local settlements or villages, the fifth group included stone fortresses built in places where archaeological excavations have not revealed an earlier period population (Mugurēvičs 1979, 1983: 5–9). On the territory of Latvia, fortified urban structures during the pre-German period and land conquests were built differently, therefore, the classification of fortresses divided into five groups does not provide information on architecture and typology of military structures shown in pictures on military construction and fortification systems included in manuscripts of architect Józef Naronowicz-Narońsky (Guerquin 1984: 12–19). Specialist in military history, academician Dr Stephen Turnbull (b. 1948) summarized news on Livonian stone castles (Turnbull 2004). Dr Ieva Ose described chapels and places of worship in the earliest medieval fortresses, also in Segwold and Wenden castles (Ose 2011). She also clarified that a forepart is called a separate fortified wider area enclosed by a strong defensive wall with built-in gates or also on one side of a masonry building complex of the castle. She analyzed fortified areas at medieval fortresses in the 13th–16th centuries (Ose 2016a). A road to the main entrance of the castle was protected, therefore, another defensive wall with a strong gate and a moat formed a strip of outer fortification. The front fortified area of the outer section between inner and outer defensive walls blocked the way for an enemy. In peacetime, the outer section became a large yard used for various purposes, therefore, farm buildings, barns, stables and workshops arranged there. The outer section for different fortresses mainly approached the defensive wall and differed in its location, configuration and size. The farm near the fortress gradually expanded, therefore, new protected areas were necessary. Each protected area had its own meaning and name (Ose 2016a: 9–10).

Segwold Castle Complex development under the direction of the Teutonic Knights

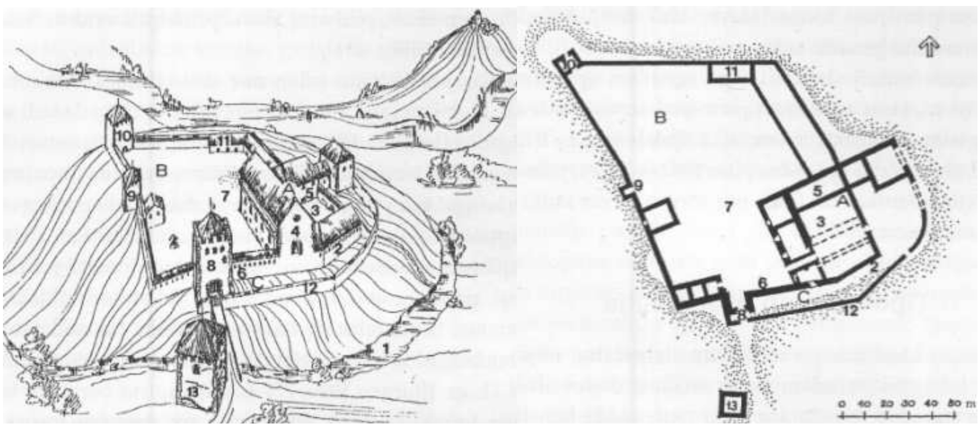
The Finno-Ugric Livs since the 11th century had its county centre on strong fortified Sattesele (Latvian: *Satezele*) Hill-fort on the left bank of the middle reaches of the Gauja. They also settled on a plateau of the top-levelled hill (later called the Hill of the Cross) former inhabited by the Gauja Semigallians of the Baltic tribe. Probably it was enclosed by a wooden palisade. Earth road provided a link between other settlements of the Gauja Livs, the Estonian lands, Pskov and Novgorod. German merchants sought to control waterways of great rivers actively used by the Livs. Catholic Priest Alexander arrived in Metsepole to baptize the locals lived on the East Coast of the Gulf of Riga. The Wends moved to the Latgalians and also accepted the Catholic Faith in 1206. Bishop of Riga (1199–1229) Albert von Buxthoeven next year signed Livonian Land Division Agreement (German: *die Teilung des Livenlandes*), won Metsepole and under the control of Archbishop of Bremen (Heinrici 1993: 369) established on the right bank of the Gauja the ecclesiastical state of the Livonian Bishopric (1207–1255) included in the Holy Roman Empire. In spring of 1208 he subjected sovereign Tuolova districts.

In the early 13th century, the Livonian Swordbrothers implemented a long-term strategy to promote the acquisition of territories in Livonia. Initially, conquerors strengthened in defensive centres of local people or in its immediate vicinity and built fortified yards on elevated relief. The first Master (German: *Herrmeister*; 1204–1209) Winno von Rohrbach obtained a geographical advantages area on the left bank of the Gauja, where merchants used transit routes connected important marketplaces with the major political and economic centres in other countries. He destroyed Livonian homes on Sattesele Hill-fort and immediately after land division in 1207 began to build defensive walls of Segwold fortified yard for Vogt's residence on a narrow strip of land near the border river of areas managed by Bishop (Heinrici 1993: 172–175). The Swordbrothers, using carefully cut limestone squares, on the hill inhabited by the newly baptized Livs erected the first quadrangular strong stone fortress (Latin: *castrum*) for the control of the Gauja Waterway and refuge from the Sattesele Livs. Construction was completed by 1209 (Jemeļjanovs 2014: 132–133, 140). To the south of this hill on a large naturally protected mound, washed on three sides by the river and protected by a ditch, construction of the early small *castrum* began between 1207 and 1209. It housed a military unit and had already been built during the Livonian uprising in 1212 to destroy fortifications on Sattesele Hill-fort northeast of *Sygewalde Castrum*. During the labour-intensive process, the resistance of the non-baptized Livs had to be taken into account, so it may have been problematic at first to build on a large area. The Swordbrothers after the Autine uprising in 1212 conquered the Sattesele Livonian lands, and it was able to start construction of defensive walls for strong fortified stone fortresses (Latin: *castra castrum*) at the southeast corner of the mound, which during the first construction period reminded the fortified yard on an elevated relief. In 1224, the papal legate William of Modena (c. 1184–1251) arrived in *Sygewalde Castrum*, established the parish and built the church for the Catholic congregation. Archaeologist Jānis Apals studied the strategy of fortresses construction in the Gauja Basin during the 13th–14th century (Apals 2002). Construction of larger, better-fortified stone fortresses and towns began after the formation of new medieval states.

The Teutonic Order’s Master (*Deutschmeister des Deutschen Ordens*, 1219–1230, *Landmeister von Preußen des Deutschen Ordens* 1229–1239) Hermann Balk (Latin: *Hermannus Falco*), Bishop of Breslau Thomas I (?–1268) and Magdeburg citizen Heinrich der Bärtige (*Heinrich I. von Schlesien*, *Heinrich I. von Polen*, Polish: *Henryk I Brodaty*; 1163–1238) signed an agreement for the establishment of towns in the ***State*** of the Teutonic ***Order*** (Latin: *Civitas Ordinis Theutonici*, German: *Staat des Deutschen Ordens*; 1230–1525), where started to build financially independent castles for Commandry and Vogtei centres. A new version for the Teutonic Order’s regulation (German: *Ordensregel*) was worked out from 1244 to 1251. The Teutonic Order’s regulation dated from 1264 determined the division of order-brothers into secular brothers (German: *leigebruder*) or brothers-knights (German: *Ritterbrüder*) and spiritual brothers-priests (German: *Priesterbrüder*). Twelve monks had to be under commandant or commander (Latin: *commendator*, *praeceptores*, German: *Komtur*, *Kommentur*) or Vogt’s (Latin: *advocatus*, German: *vogd*, *voit*, *vogt*) subjugation: two of them were brothers-priests, but the others – brothers-knights. All brothers of the Order had to give the monks’ promises of poverty, chastity and obedience. They had to fight against pagans. In the joint ownership could be fields, vineyards, mills, fortresses, villages, parishes, chapels, people – men and women, and slaves – men and women. The Chapter of Order, Grand Master or the “Jesus Christ’s assistant” for the Brothers of the Order was elected for life. Head or Grand Marshal (German: *Großmarschall*) was in charge of war affairs and managed troops instead of Master. The Order's all brothers together – the brothers-knights of the castle-region, priests and servants, called the convent (Šterns 2002: 418–420), had to live in monasteries. They used monasteries and castles as examples (German: *Kreuzfahrerburgen*) in Italy. Relatively simple *castellum*-type castles consisted of ringwalls, surrounding a rectangular courtyard. Residential and utility buildings attached to walls. Historian of architecture, Cand Art. Jurijs Vasiļjevs (1928–1993) divided the medieval period (the late 12th cent. – the first third of the 16th cent.) of the architecture of Latvia into several stages. The time of armed struggle to introduce the German feudal power in the Baltics covered the second stage (the second third of the 13th cent. – the late 13th cent.). The second construction period (1237–1400) in Livonia related to stone castles of the Teutonic Order.

The Teutonic Knights built stone fortresses with the inner courtyard on the best protect places of the high relief and perfected the arrangement of outer parts to avoid contact of defensive walls with the adjacent settlement. Relief, financial opportunities and economic activities determined the number of outer parts. Segwold *Castrum* built by ***the Swordbrothers*** was also extended. A fortified yard of *castrum* was used as a court of the outer part of the castle. A wall, built along steep slopes, enclosed an outer section of the fortress, which was extended by rational use of existing defensive walls, to which new eastern and southern blocks added. The internal yard would be placed in the south. The chapel was included in the volume of the castle ***(Ozola 2020b).*** The Castle Chapel on the second floor of the new western block of Segwold *Castellum* (Latin: *castellum Sygewaldensis, de castello Sygewaldensi,* German: *Schloss Segewold*) (**Fig. 2**) approached the outer wall of the residential building of ***the Swordbrothers***, therefore, abandoned the traditional orientation of the altar room to the east. The altarpiece was turned to the south and at a narrow-angle attached to the defensive wall. This was why the three-meter-thick defensive wall peculiarly included the window of the altar room, facing as far to the east as possible, so that the position would be sloping. Tatjana Vītola in the article on Segwold Castle Ruins conservation and restoration wrote that manholes were remodelled, and windows of the chapel and the Convent Hall on the second floor of the western block were enlarged in the second half of the 15th century. The fortified complex during the third construction period was adapted to firearms (Vītola 2002: 218, 219). The fortress got a two-part plan (**Fig. 3**), which included the outer forepart (Latvian: *dienvidu jeb ārējā priekšpils*, German: *Vorburg*) with farm buildings and gardens protected by ponds on the southeastern edge (Caune&Ose 2004: 465–466). Construction of the strategically important gate tower was started to regulate the lifting part of the bridge and to protect the entrance to the forepart of the castle. The bridge tower was placed on the north side to be transparent the forepart and the access to the bridge from the other side of the ditch. In the 1850s, the owner of Segwold Castle

Ruins, Count Alexander Anton Stanislaus Bernhard von der Borch (1804–1867) organized archaeological excavations near the portal of entry in the outer part of the castle. Chief specialist of the Turaida Museum Reserve, archaeologist Normunds Treijs researched the strengthening of the gate tower (Treijs 1988). He published a report on archaeological excavations in Segwold Castle Ruins in 1987 and 1988 (Treijs 2002). In the second construction period, another outer wall had been erected around the southern part of the *Castellum* to create a parham. It was found during small archaeological excavations (1997) in Segwold Castle Ruins under the leadership of an archaeologist of the ***National History Museum of Latvia*** Jānis Ciglis (b. 1964).



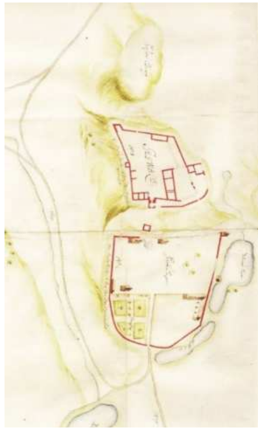


Figure 2. Architect, restorer, art historian Tatjana Vītola (1920–2007).
Reconstruction of the 16th century Segwold fortified building complex:
A – Segwold *Castellum*, B – outer part of the castle (Latvian: *priekšpils*), C – unbuilt strip in addition to the fortification (Latvian: *parhams*), 1 – moat (Latvian: *pilsgrāvis* or *aizsarggrāvis*), 2 – ringwall (Latvian: *apkārtmūris*), 3 – internal yard (Latvian: *iekšējais pagalms*), 4 – church for the Catholic congregation, 5 – representation building, 6 – wall with covered guard for outer part (Latvian: *priekšpils mūris ar segtu sargeju*), 7 – court of outer part of the castle (Latvian: *priekšpils pagalms*), 8 – gate tower, 9 – flanking tower, 10 – corner tower, 11 – household building, stablings, warehouses, 12 – wall for an unbuilt additional fortification strip, 13 – bridge tower
(Ose 2001: 137)

Figure 3. **Segwold *Castellum* plan with the court of the castle and the south outer forepart. Around 1680** (PSFBC 1680)

In 1590, the inventory description of Segwold *Castellum* mentioned the outer forepart, stables, a barn for threshing and drying grain and a drawbridge over a dry ditch. A bridge on wooden supports led across the deep ditch to the inner forepart, where stables for horses, a wooden bathhouse and residential buildings located. A guardroom was at the main gate (Ose 2016a: 16). In the ***Military Archives*** of Sweden (Stockholm), there are materials on Livonian fortresses, also the oldest known plan of Segwold Castle Mound storage at the road (*Weg*) on the bank of the Gauja River (*Fluvius Aa*). The cartographic material made around 1680 shows low fields and hay meadows (*Niedrige Acker Felder und Heuschläge*) and field (*Acker Feld*) to the east of the fortress, muddy place (*Morastig*) on the southeast side and the high hill (*Hoher Berg*) to the north from the fortification, the place of the outer forepart (*Hoff Lage*), a garden (*Garten*), ponds (*Kleine See*) at slopes and the church for the Catholic congregation. At the time of making the plan, defensive walls had already been partially demolished, so they are marked with a red dashed line (Ose 2016b: 226, 228). The 17th century Segwold Castle plan in the fund "*Pilsētu un cietokšņu plāni*" /Plans of towns and fortresses/ and a copy of Segwold Castle plan (Fund 6828, Description 2, Case 813–852) are stored at the National Archives of Latvia. Prominent researcher of castles, private lecturer Karl von Löwis of Menar found a revised Segwold Castle reconstruction plan with information from the 17th century stored at the Archive in Stockholm. This plan has been included in the encyclopedia of Livonian castles (Löwis 1922: 112, plans 45–46). Architect of Pärnu City, lecturer at Dorpat University Reinhold Ludwig Ernst Guleke (1834–1927) depicted Segwold Castle Ruins especially broadly in photos, drawings of details and surveys (Guleke 1896: T.VII b, d, e; T.VIII a, b, c, d, e).

Flemish traveller, diplomat Guillebert de Lannoy (also Gilbert, Guilbert or Ghillebert; 1386–1462) as a crusader and individual traveller travelled in the Baltic in 1413–1414. He mentioned Segwold (in his text: *Zeghewalde*) in his notes of the Livonian journey of 1412. In 1421 he as Anglo-French ambassador "discovered" countries between Germany and Russia (Lannoy 1740: 23). Polish historian, social and Catholic activist Oscar Halecki (1891–1973) published research on de Lannoy who as an ambassador for Duke Philippe of Burgundy travelled in the Baltic in 1421. Travels' notes have been collected after his death. One copy of interesting manuscript "*Voyages*" remained in the Archives of the Counts de Lannoy. In 1552 the copy belonged to Philippe de Lannoy and was acquired in the nineteenth century by the Bollandistes. A second copy of the manuscript can easily be studied in the Royal Library of Brussels (Halecki 1944: 315).

Specific development of Wenden Castle Complex and urban structures under the direction of the Teutonic Knights

It was believed that the original task of German fortresses was to provide traffic control for the most important trade routes and large rivers Daugava and Gauja. In Riga, trade control was provided from the yard of the Livonian Swordbrothers next to the Port of Rīdziņa. Later, the commercial waterway was controlled from the Bishop's yard on the Daugava bank. **A**t the same time, *castrum Kukonois* (Latvian: *Koknese*), *castrum Asscrad* (Latvian: *Aizkraukle*), *castrum Lennewarde* (Latvian: *Lielvārde*), *castrum Ykecola* (also *Ixcola*, Latvian: *Ikšķile*), *castrum Holme* (Latvian: *Salaspils*) located on the Daugava bank and *Sygewalde castrum*, *castrum de Woldemer* (Latvian: *Valmiera*), the fortress of Fredeland (Latvian: *Turaida*) located on banks of the Gauja to observe the passing waterway.

The Wends got under subordinate of the Knights, became loyal allied in fights against the Estonians and the Slavs and allowed brothers-knights to stop in one's *Wendorum castrum* (Šterns

2002: 196). The Knights ***a***fter 1207 started to erect Old-Wenden (German: *Alt-Wenden*, Latvian: Vec-Cēsis) *antiquum castrum* instead of the Wends' housing place on Riekstu Hill (Caune&Ose 2004: 117–119, 122–123). This small fortress surrounded by a repeatedly restored pole fence was built in 1210. Later, defensive walls replaced palisades, and next to Riekstu Hill, a fortified yard of stone with a chapel was created. Wooden buildings adjoined to the inside edge of defensive walls or stood separately. A noticeable feature was visible if comparing Wenden (Winden) *Castrum* with other German fortresses in the first half of the 13th century. Wenden *Castrum* (1213–1214) built on high relief at meeting place of two deep ravines opposite Tuolova ruler's residence not less than 2,5 kilometres to the Gauja Waterway was not a grateful place for direct observation but it located at the significant intersection, where local routes started and to which an important trade road from Lithuania led through Selonia (Latvian: *Sēlija*) and passed *castrum Kukonois*. Riga–Pskov road branched, creating Treiden–Wolmar–Stackeln (Latvian: *Strenči*)–Adsel–Pskov trade route and a sidewalk to Ronneburg (Latvian: *Rauna*), which originally was the most important commercial highway northeast. The control of important trade routes and easily reachable three ferries provided crossing of the Gauja 3 to 5 kilometres from the fortress was significant. It was possible, that some areas on the Gauja right bank have been subordinate to the Order. It was not an economically significant benefit but intended to control Gauja ferries in the north (Vasmanis 2007: 121–123). Wenden *Castrum* together with Riekstu Hill created a double fortification next to the Gauja ferry and Riga–Dorpat (Latvian: *Tērbata*, Estonian: *Tartu*, Latin: *Tarbatum*, Russian: *Дерпт*, since 1893 *Юрьев*) route which crossed bridge over the Ymera (also *Emere*, Latvian: *Jumara*, *Imera*) River and along the left bank led to the church in Ymera (Caune&Ose 2004: 122–123). Both fortresses withstood in 1218 a strong attack organized by the Slavs from Novgorod. Three years later, the Slavs attacked again. A strong bridge connected German and Wendian fortresses had already been built. The Wends resigned, their houses burned and the strangers left. The Wends together with the Latgalians and German origin merchants rebuilt the settlement. In 1221 wooden houses (Zunde 2011a), characteristic for Wenden settlement in the early 13th century, was organized along Riga–Dorpat trade route connected near and far, small and large places in Livonia and beyond (Broce 2007: 20–22). The researcher of Latvian medieval history, pedagogue, academician, Dr Hab. Vilnis Pāvulāns (1938–1994) published studies on the 14th–17th century trackways on the territory of Latvia (Pāvulāns 1971). It is believed that dwellings belonged to the village of a local population and prefabricated houses-warehouses of merchants initially created irregular mixed type building (Plētiens 2017). Aisles made of logs between them served as streets. Later, the origins of the town can be found at a junction of important roads. In addition to mighty Segwold and Wenden fortresses built for new power centres, fortifications of the locals continued to exist in the 13th and 14th centuries. Academician, Professor ***Dr Hab. Chem., Dr Hist. h. c.*** Jānis Stradiņš (1933–

2019) emphasized, that the term "town" emerged in Latvia as a medieval category of Western Europe and formed simultaneously with the entry of German merchants, craftsmen, knights, priests, medieval city legislations. The second biggest Livonian town of Wenden became an important political centre by a marketplace, the Town Hall for the first time was mentioned on 28 July 1226. Historian Wilhelm Theodor Georg Lenz (1906–1976), born in Wenden, wrote on relations between Lübeck and Wenden (Lenz 1971). Architect, urban planner Mg Arch. Silvija Ozola studied planning of fortified urban structures built by the Livonian Swordbrothers (Ozola 2020a).

After the defeat of the Livonian Brothers of the Sword in the Battle of Saule, the Teutonic Order came to Livonia. In Livonia assigned Master (German: *Landmeister in Livland des Deutschen Ordens*; 1237–1238) Hermann Balk, who during seven years founded five towns in the State of the Teutonic Order, chosed Wenden *Castrum* for his residence (Neitmann 1993) and the central headquarters of the Teutonic Order. The Teutonic Knights levelled all fortifications on Riekstu Hill to use it as a relief elevation together with the bridge, preserved former diches, buried many springs in the vicinity of the castle and filled moats with water. Four blocks arranged around an inner courtyard replaced old buildings of *castrum* and together with former defensive walls created a rectangle *castellum*-type structure for the convent. The north block housed a hall and a single-nave Castle Chapel (**Fig. 4**) at the eastern end for common prayers of ***the*** Knights. Archaeologists carried out research (1999–2001) in the north block (Apala 2007: 59), which intrusion of the outer and inner walls marked the boundary of two distinct parts. The West Tower, a masterpiece of military architecture and dominant built on a rectangular lower part, attached to the outside wall of the south block to the left from the main gate (Dirveiks 2017: 33). Chairman of German Society for History and Antiquities in Riga (1907–1911), archivist of the Great Guild Riga and the City of Riga (1907–1935) Mag Hist. Arnold Heinrich Feuereisen (1868–1943) published information on the West Tower (Feuereisen 1912) housed the Hall of Master (Lapiņa 1991, Dirveiks 2011). Architect Karl Rudolf Hermann Seuberlich (1878–1938) expressed an opinion on the current condition of the West Tower (Seuberlich 1912) issued by Society for the History and Archeology of the Baltic Sea Provinces of Russia. The West Tower during implementing the project "*Cēsu viduslaiku pils saglabāšana reģiona sociālekonomiskai attīstībai*" /Preservation of Cēsis medieval castle for socio-economic development of the region/ with the financial support of the European Union regained its authentic clay roof and restored the Hall of Master, where six months of conservation of the unique star vault required high professionalism and care from restorers of "Aqua Latvia" under the guidance of restorer Rihards Platais. In the competition "Latvian Construction Annual Award 2015", the Hall of Master won the first place in the nomination "Restoration". The author of the restoration proposal, architect Artūrs Lapiņš, who also researched doors and windows in Wenden Castle, received an award for the preservation of the Hall of Master. Architect, Dr Arch. Ilmārs Dirveiks carried out architectural–artistic inventory (Dirveiks 2002) and architectural research of the castle, led architectural research, curried out theoretical reconstruction of the west block (collapsed in early September 1577) and investigated latrines in this castle (Dirveiks 2018). The southern end of a west block (Dirveiks 2013) on the western side of the yard (Apala 2007: 54) adjoined the south block placed perpendicular to the largest east block. **It** had only three external walls because the northern end at right angles exposed to the southeastern outer wall of the outwards extending Castle Chapel described in inventory records of 1582 as "a beautiful little church" with walls damaged by cannon balls (Kalniņš 2014: 36–37). Only St. Anna's Chapel (German: *Sankt Annenkapelle*, 1331–1344) in the Grandmaster's Marienburg (Polish: *Malbork*) residence was more spacious in centres of the Teutonic Order (Kalniņš 2017: 75). Three large windows on the northern side lit up the Castle Chapel, where a vault profile stone carved from light gray limestone has survived in the southwestern wall (Stukmanis 2014: 307). The window on the eastern side was behind the altar, whose room with three altars and icons moved outside the perimeter building (**Fig. 5**). The Livonian Master (1470–1471) Johann Wolthus von Herse (Latin: *Johannes Walthausen*) founded the Vicary at St. Virgin Maria's Altar. It is possible that the rectangular tower (around 1400) in the western corner of the quadrangular castle (Dzenis 2018) was built simultaneously with new buildings in the 14th century and was not completed (Malvess 2005: 198). Director (1964–1972) of the Cesis Museum of History and Art Jānis Brengmanis (1932–1972) remembered a spiral staircase in the southwestern corner of the courtyard (Brengmanis 1972). Plan and information on Wenden *Castellum* have been included in the issue (Löwis 1922: 122–124, plans 51–52) compiled by Karl von Löwis of Menar, in the book (Tuulse 1942: 46–47) wrote by Professor Armin Tuulse and in the encyclopaedia (Caune&Ose 2004: 120–126) compiled by Professor Andris Caune and historian Ieva Ose. Teacher, publicist, a historian at the Cesis Museum of History and Art (1980–1999), Mg Hist. Daumants ***Vasmanis (1954–2019)*** wrote on owners and inhabitants of the castle over the centuries (***Vasmanis 1997***).

The single-nave Great Hall (German: *Rittersaal*) or the Festive Hall covered by wooden ceilings located at a dining room or a refectory (German: *Remter*, Latin: *refectorium*) on the main floor of the east block. During the Livonian Master (1494–1535) Wolter (or Walter) of Plettenberg regin, brick vaults divided the Great Hall into four bays (Malvess 2005: 180). The early firearms model of the cylindrical South Tower was built at the latest in the first half of the 15th century simultaneously with exterior walls of the east and the south blocks (Dirveiks 2017: 33), which did not change to save the gallery. Excavation results in 1893 call into question the declaration expressed by Karl von Löwis of Menar (Löwis 1894) that the South Tower named "Long Herman" from the German word "*Wehrmann*" /guard/ (Dzirkalis, *Cēsu Vēstis*, 26 February 1937) would have played a key role in the fortress protecting (**Fig. 6**). There was a prison in the tower's basement

(Dzirkalis, *Cēsu Vēstis*, 5 March 1937). Plettenberg ordered the construction of three new towers (Malvess 2005: 198). It is possible that cylindrical towers for flanked protection occurred simultaneously with east and south foreparts of the castle. The task of the cylindrical North Tower, covered by a roof, in the northern part of the north block and diagonally opposite the South Tower (Zunde 2011b) was to fight the attack from the north. Archaeologist of the Scientific Restoration Workshop of the State Construction and Architecture Committee of the Council of Ministers of the Latvian SSR Roberts Malvess collected historical plans of Wenden Castle (Malvess 1995). He cleaned rooms in the North Tower and opened a torture cellar (*Cēsu Stars*, 26 November 1960). He wrote a manuscript on archeological excavations in the North Tower's basement (Malvess 1962) and a manuscript on survey of *castellum* walls (Malvess). Archaeological research was carried out (1974, 2000–2006) also in the *castellum* core (Apala 2008) and to the south of the south block (1975–1985), at outer walls of the South (***Apala*** 1982) and the West towers (Apala 1980), on the western slope of the wall (1985–1999) (Apala 2000), at the foot of the North Tower and in foreground's places (Apala 1994, 1998). Dr Hist. Kaspars ***Kļaviņš*** and historian at the Cesis Museum of History and Art Gundars Kalniņš continued the castle studies (***Kļaviņš&Kalniņš*** 2011).

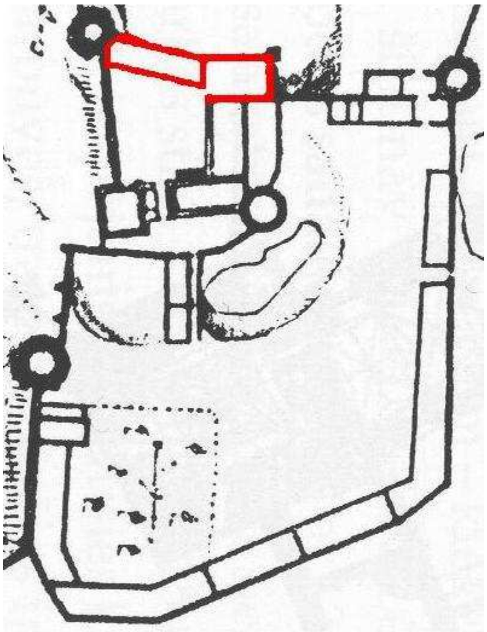


Figure 4. Swedish military engineer Johan Palmstruck (1611–1671).
A fragment from Wenden *Castellum* plan: the north block and the Castle Chapel (marked with a red line). The 17th century (Palmstruck 17th cent.)

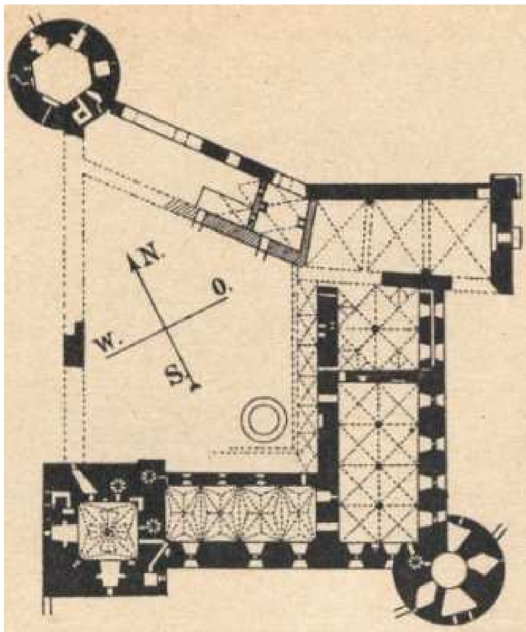


Figure 5. Karl Woldemar von Löwis of Menar (1855–1930).
The north block and the single-nave Castle Chapel in plan of Wenden fortified building complex published by Estonian historian of art, Professor Armin Tuulse (1907–1977). **1888** (Tuulse 1942: 189)

Figure 6. **Schematic plan of Wenden Castle** (Apala 2007: 47)

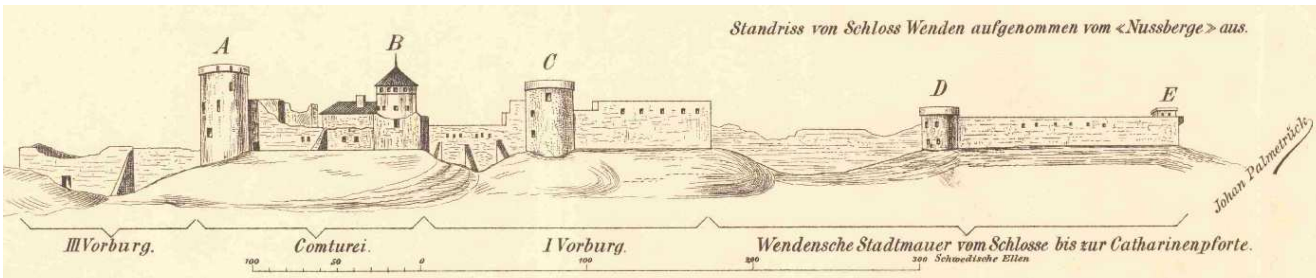


Figure 7. Researcher of castles Dr Karl Woldemar von Löwis of Menar (1855–1930). **Drawing of Wenden fortified building complex panorama view. 1888** (Löwis 1888)

After rebuilding of some parts of blocks, extensive construction expanded in outer parts of the castle. Firearms, introduced in Livonia in the late 14th century and the early 15th century, destroyed the military importance of the Knights: bullets drilled through armour and horses afraid from shot noise. The Teutonic Order's regulations determined a monastery-like cohabitation for the convent of the Knights, but it falling apart. The number of the Knights was limited, and their rooms were small. The unlimited number of the mercenaries served as infantries and gained increasing importance needed of wide barracks (Malvess 2005: 181). In castles, large mercenaries' resettlement sites created. Defensive walls and ditches provided its external protection. South, east and north outer parts added to Wenden *Castellum* and formed a fortified building complex (Fig. 7).

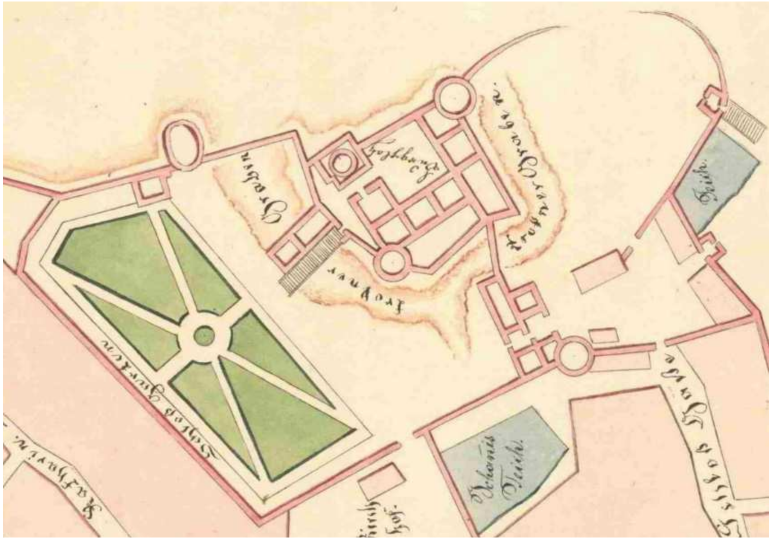


Figure 8. **Plan of Wenden Castellum and its north, east and the south outer sections. 1784** (GSW 1784)

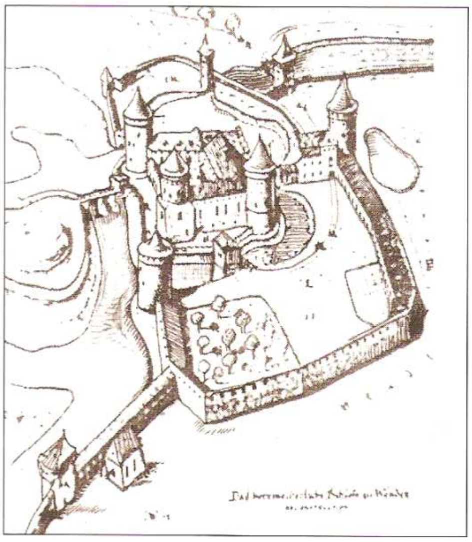


Figure 9. **Reconstruction drawing of Wenden Castellum and a bridge led across ravine to Riekstu Hill in the neighborhood. The late 19th century** (Iltnere&Placēns 1999)

The Castle Garden (**Fig. 8**) in the south outer part (Polish: *przygorodek*) was enclosed by a defensive wall. It occupied a third of the fortified building complex area and was separated from the *castellum* by a moat, across which a stone bridge led to the main entrance. The Castle Gate (Polish: *brama zamkowa*) with a palisade located in front of it. Drawbridge with two iron chains located on the east side of modern Pils Street. In the oldest plan of Wenden (around 1685) drawn by Swedish military engineer Johan Palmstruch (1611–1671), the gate structure (German: *Schloss Pforte*) followed the bridge with an iron lattice strenghten in chains above the entrance gate built-in the defensive wall of the outer part, next to which the Town Hall was built from the town side. The entrance from the countryside led through the fortified gate (Dzenis 2017). The West Tower of the south outer part, which west wall crossed a ravine (Malvess 2005: 198), was built to protect this outer part from the inside and to beat back enemy, attacking a 42-metres-long stone bridge (Apala 1990) across the moat in front of the main entrance led through the gate space into the south block with the Convent Hall. In the final stage of existence, the stone bridge, rebuilt several times, became a three-storey structure with a driveway on the middle level and three separate spaces at the bottom. Professor Andris Caune studied the 13^{th}–16^{th} century Weneden building (Caune 2014: 10–14), and historian Māra Caune wrote on problems of historical topography (Caune 1994).

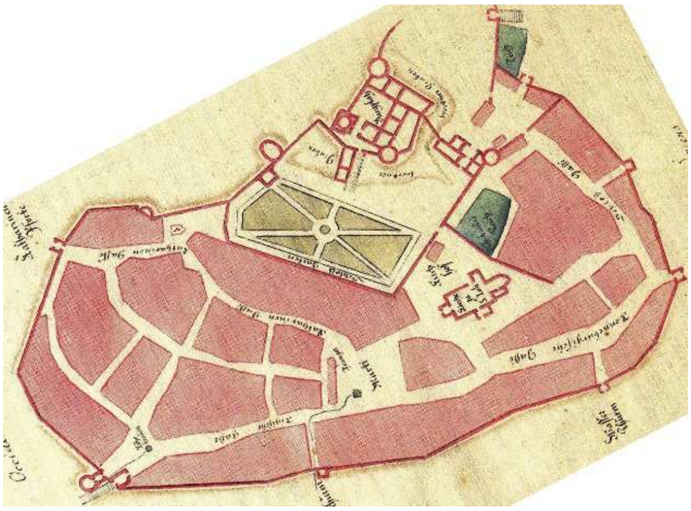


Figure 10. German pedagogue, artist, ethnographer Johann Christoph Brotze (1742–1823). **Reduced copy of Wenden town (1323) plan** (The National Arhives of Latvia, Fund 7404, Description 1, Case 1512), drawn up in 1693 by Swedish surveyor Johann Abraham Ulrich. **1780s** (Broce 2007: 17)

In a letter dated 8 May 1532, Robert de Grave (*Ropert/Ruprecht* or *Rupert de Grave*; 1485–1535) first mentioned the small fortified east outer part between the town and the *castellum*. Wooden houses of servants, barns (*obdachem*), animal housing, carriages and other structures (Polish: *budowanie*) accessed to its defensive wall, which northwest part included a great deal of the old wall and added to the North Tower. The cylindrical East Tower protected the gate of the east outer part. The gate tower on the north side of the entrance, leading from the east to the south forecourt, created an additional barrier to entry into the *castellum*, and a protective structure for the gate was additionally built (Polish: *brama*) (Dzenis 2017). Poet, publicist, civil servant Leyon Pierce Balthasar von Campenhausen (1746–1807) from a Baltic-German and Swedish noble family wrote on this castle during the siege of Wenden (Campenhausen 1801). Russian writer Alexander Bestuzhev-Marlinsky (Russian: *Александр Александрович* ***Бестужев-Марлинский; 1797–1837)*** published an excerpt on Wenden Castle from the diary of a guard officer (***Бестужев 1981***). Around 1829, Auditor Wilhelm Tusch surveyed Wenden Castle Ruins and Revisor Christoph von Kuntze created drawings for a collection (LPA 2008) named after Governor-General of the Governorate of Livonia, Marquis Filippo Paulucci delle Roncole (1779–1849). The Russia army officer, landlord of the Governorate of Livonia, Count Karl Eberhard von Sievers (1745–1821) in 1777 obtained Wenden Manor House, and around 1840 under the leadership of Count Emanuel von Sievers (1817–1909) one of the oldest known archaeological excavations in Latvia was performed in Wenden Castle Ruins. A regional researcher Jegor Julius von Sivers (1823–1879) prepared the first historical studies of Wenden medieval building complex (Sivers 1852), published by sculptor, painter Wilhelm Siegfried Stavenhagen (1814–1881) in the album of Baltic views (Stavenhagen 1866: 79–88). Dr Karl von Löwis of Menar in the 1880s began to be systematically surveyed old buildings, made Wenden *Castellum* plan, published it in drawings (1888) of stronghold's components and wrote an article (Löwis 1890). In summer of 1888 redrawn view of Wenden Castle was published in his essays (Malvess 1998: 255). The inspector at Cēsis resort committee Kārlis Dzirkalis (1902–1997) wrote Wenden Castle history (***Dzirkalis*** 1919) but scientific research in 1958 was started by librarian Aleksandrs Jansons (1916–1991). He compiled a bibliography (Jansons 1958) but Fjodorovs D. carried out the historical research of Wenden Castle (Fjodorovs 1961).

The population of the German power centres in Livonia developed under the cover of the castle, and an urban structure was included in the common defensive system. The ditch or a water obstacle separated the castle from the settlement, which planning obtained the centre formed by building around a marketplace near the church for the Catholic congregation. Dolomite defensive walls protected Wenden fortified settlement inhabited by the Latgalians, the Wends, the Livs and the Germans and formed the medieval agglomeration of oval configuration, which included modern Mazā Katrīna Street (Apala&Treijs 1986), Līvu Square (the former marketplace) (Apala 2003, 2004) and Rožu Square (the former marketplace in front of the church) (Apala 2010) and together with three outer parts as a single fortified building complex had the common defensive system (**Fig. 9**) created by towers, gates and three main exits built-in the defensive wall. This agglomeration consisted of craftsmen' and merchants' houses arranged at walls of the outer section in the settlement's eastern part, the Livonian houses on plots of land arranged by Riga and Lemsal roads in the settlement's southern part, the Latgalian suburb on Rauna Street, canons' houses and Russian merchants' yard. Springwater was stored in underground storage facilities, from which water was taken through wooden pipes to the marketplace at the intersection of Riga and Kalēju streets, where a well for water was built. Probably the first Town Hall was there. At that time, the town border went about along Riga Street, Kalēju Street, past the church for the Catholic congregation, later replaced by St. Catherine's Church of stone, the West Tower, along walls of the south outer part and Mazā Līvu Street (Juškevics 1934: 163–164). Trade routes stimulated the development of a fortified building complex (Plētiens 2017) consisting of Wenden *Castellum*, where lived the Knights, riflemen and members of service, together with the settlement, where streets from the centre led to town gates (**Fig. 10**) and divided the fortified area into blocks unconnected with *castellum* planning. Due to the lack of written sources, historians have not described the further development of irregular mixed type building in the 13th century (Plētiens 2017). City archivist (German: *Stadtarchivar*) Dr Philipp Schwartz published studies on trade in Wenden (Schwartz 1897), historians Ārija Zeida (1933–1984) and Cand Hist. Teodors Zeids (1912–1994) studied feudal crafts in Wenden (Zeida&Zeids, 1961). Erna Berkholce wrote an essay on Wenden construction history (Berkholce 1952–1953), architect Rita Zandberga (1929–1993) studied the architecture of Wenden Castle and its role in town planning (Zandberga 1979a, 1979b).

Conclusions

1. The Livonian Swordbrothers built the first fortifications outside Riga for the control of the great Daugava and Gauja waterways and the transit earth road. Navigation along the Gauja took place downstream to Toreida, therefore, *Sygewalde Castrum* was built for the control of the waterway but Wenden *Castrum* (1213–1214) was built for the control of the transit earth road. For the construction of both fortresses, ***the Swordbrothers*** used settlements of the newly baptized locals, where temporary fortifications were initially built and the locals lived with the Knights but later they built stone fortresses in the immediate vicinity and the church for the townspeople Catholic parish outside of the fortress. Each of the fortified sites of the local and the Knights had fortified yard on a separate hill interconnected by a bridge.
2. The Teutonic Knights settled down in the fortress erected by ***the Swordbrothers***, rebuilt and expanded it, taking into account requirements of the Teutonic Order's regulation regarding the lifestyle of the knight convent in a monastery. In early *castellum*-type castles established instead of *Sygewalde Castrum* and Wenden *Castrum*, buildings of the previous period were involved, therefore, did not allow to achieve full building regularity. The fortified yard of *Sygewalde Castrum* built by the Livonian ***Swordbrothers*** was turned into an inner section of the castle but the southern part of the fortress on a separate hill in front of the main entrance was transformed into an outer section of the castle, and a garden was established there. The *castellum*-type castle of Wenden was also built using the fortified yard created by ***the Swordbrothers***, and a wooden bridge connected it with a settlement of the locals on Riekstu Hill. Four buildings built around a large inner courtyard created a *castellum* that did not get a regular layout due to buildings of the previous period. A garden created in front of the main entrance of Wenden *Castellum* was separated by a ditch over which a stone bridge led. Extensive outer sections of the castle were set up for an economic activity. Outside the fortified building complex, a church for the townspeople Catholic parish was built near the marketplace at the traffic road, along which locals and German merchants and craftsmen established the settlement.

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DESIGN OF COMPOSITE MATERIALS AND INTERIOR APPLICATIONS

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Abstract

Design of composite materials and interior applications

Key Words: *design, composite materials, interior, design object*

The study is devoted to the topic of composite materials. The aim is to find out what kind of composite materials are used to create design objects and how they can be practiced in interior design, what the advantages and disadvantages of these materials are. In the course of the study an interesting technique called TERRAZZO was discovered. This technique uses the combination of marble pieces and concrete mixture in the interior. Based on the principle of terrazzo some experiments with various composite materials and other objects such as stones, metal, glass, ceramics were done. The experiments were conducted to find out how it can be applied to design objects.

Kopsavilkums

Dizaina objektu veidošanā no kompozitmateriāliem un pielietošana interjerā

Atslēgvārdi: *dizains, kompozitmateriāli, interjers, dizaina objekti*

Pētījums ir veltīts kompozitmateriālu tēmai. Mērķis ir izpētīt kādus kompozitmateriālus izmanto dizaina objektu veidošanā un kā pielieto šo materiālu interjerā, kādas ir priekšrocības un trūkumi šīm materiālam. Pētījumā gaitā tiek atrasta interesanta tehnika – TERRAZZO, kur savieno marmora gabaliņus kopā ar betona maisījumiem, kuru izmanto interjerā. Pēc šāda – līdzīga principa – ir veidots personīgais eksperiments, kā kompozītmateriāli var darboties kopā ar citiem objektiem: akmeņiem, metālu, stiklu, keramiku un kā tos var pielietot, veidojot dizaina priekšmetus.

Introduction

Today, many designers and artists turn to experimentation in their creative work, using not only well-known and frequently used raw materials, but also non-traditional building and various composite materials. Composite materials are called 21st century building materials. These are materials that consist of two or more components that differ significantly in both chemical and physical properties. The combination of these materials creates a new material with unique properties that each material alone cannot have *(Information on composite materials.* www.gdpkoral.cz). There are many types of composite materials used in various fields: plastics (consumer goods), reinforced concrete (used in construction), carbon fiber (hockey sticks, fishing rods), fiberglass (boats, car bodies), car tires, metal composites, etc. (*File archives for students.* www.studfile.net). The aim of this study is to investigate what composite materials can be used in the creation of design objects, how these materials can be practiced in interior design and what are their advantages and disadvantages.

As a composite material is a combination of materials, it can be formed on the basis of the properties of individual materials, as a result of which the newly created material acquires several favorable properties. For example, it is possible to increase resistance to chemicals, improve electrical and thermal insulation properties, etc.

Composite materials can be combined with, for example, natural ones and therefore, unusual design objects in form and content become available. Peculiar relief surfaces can be obtained from fiberglass and composite materials and any shape can be realized: sculptures, art objects, decorative finishes. Greek-born designer **Savvas Laz** (1985) offers interesting solutions for the creation and use of composite materials. In his creative work, he experiments and creates design objects, combining elements of art and craft technologies. S. Laz sells both design products (furniture, interior items) and art installations from composite materials. By combining foam pieces with composite materials and resin, he has created an interesting interior design object – a chair (Figure 1) (*Biography of the designer Savvas Laz.* www.savvaslaz.com).

Figure 1. **Designer Savvaz Laz. Trashformer sculptural chair**
(*Website for different types of designers.* https://design-mate.ru/read/news/dizayner-savvaz-laz-sdelal-kreslo-iz-penoplastovoy-upakovki)

With this design project, the designer wanted to draw attention to the problem of waste abundance in his hometown of Athens. The foam which he used to create the Trashformers sculptural chair was found in garbage containers. The blocks of foam are commonly used to transport fragile equipment: computers, washing machines, refrigerators, or other appliances. Using these blocks as a Lego constructor the designer folded a chair which was covered with a special composition of resin, fiberglass and color pigments, giving the structure the strength and functionality it needed.

Composite material – fiberglass

One of the peculiar composite materials that can be used to realize design objects is fiberglass. It consists of glass cloth in the form of thin threads (like human hair) bonded with epoxy or polymer resins. The result of this connection is a fairly durable construction material (Figure 2). It should be noted that fiberglass, like other modern materials, has individual advantages and disadvantages.

Figure 2. **Roll the glass cloth together with the resin and hardener; the compound results in a new material – fiberglass** (*Molding materials*. https://www.23stroi.ru/catalog/poliehfirnye_smoly/valiki-prikatochnye-v-assortimente/)

The advantages of fiberglass are that this composite material is highly resistant to the negative effects of the environment, is very strong (the strength in this case is almost the same as metal structures), but quite light (especially compared to metal products) and available to anyone – either a simple user or a professional (Figure 3.)

Figure 3. **Advantages of the composite material – fiberglass**

The disadvantages of fiberglass include high price, chemical odor and the necessity of a special suit and a mask during the work (Figure 4).

Figure 4. **The disadvantages of fiberglass**

Fiberglass in furniture design

Fiberglass products are found in a wide variety of fields, and the furniture industry is no exception. Durable tables, chairs and other furniture are made of this composite material (Figure 5).

Ergonomic and easy-to-use furniture is widely used in everyday life, which is a completely new solution in the organization of space. It actively uses in different places such as:

- bars, restaurants, cafes;
- interior design;
- stadiums and cinemas;
- shopping and business centers;
- exhibition halls.

The production technology allows fiberglass products to be given an unusual shape and a diverse surface topography, which combined with a wide range of possible color solutions, allows you to create exclusive interior items. The plasticity of the material allows to embody any designer's idea (Figure 6).

Figure 5. **Fiberglass chairs**
(*Production of various types of products from composite materials.* https://plastic-prime.ru/dizaynerskaya-mebel)

Figure 6. **Futuristic cafe info center. Frankfurt, Germany. Made of polished fiberglass**
(*Blogger social network.* https://ru-consultants.livejournal.com/646561.html)

Fiberglass furniture and design objects are used not only in the interior, but also in the exterior, in the design environment (Figure 7). The material is so durable that it can withstand any weather conditions (*Production of various types of products from composite materials.* https://plastic-prime.ru).

Figure 7. **Fiberglass garden furniture**
(Production of various types of products from composite materials.
https://plastic-prime.ru/dizaynerskaya-mebel)

The designer who works with fiberglass composites is **Dan Corson** (born 1964 in Glendale, California). He works in the field of public art, creating large-scale, conceptual works that take place in urban environments, including parks, railway stations, art galleries, meditation chambers, intersections, under highways and on sidewalks. His approach is a mixture of sculpture, installation, theater design, architectural and landscape design. The materials are metal, glass, concrete, fiberglass, gravel, light emitting diodes, lasers, neon, solar panels, radar detectors, photovoltaic batteries, infrared cameras, motors, spotlights and sometimes elements such as fire, water and smoke. His work often incorporates advanced technologies in lighting, sound, and other electronic media (Figure 8) (*Internet for Artists.* www.arts.wa.gov).

Figure 8. **Dan Corson with his art objects from composite materials**
(Personal website of journalist and writer Hoong Yee Lee Krakauer. https://hoongyee.com/artist-interview-dan-corson/)

Dan Corson creates huge works of art, often using fiberglass and composite materials in his works. One of his works is an exotic, unusual and dynamic 17-foot art scene located along Davis Street in Portland, Oregon, USA. They are made of several layers of transparent fiberglass with light emitting diodes mounted on a steel base inside the object (*Scientific-popular portal*. www.energy-fresh.ru; *Dan Corson personal website*. http://dancorson.com/).

Figure 9. **Dan Corson art objects along Davis Street in Portland, Oregon, USA**
(Zinātniski-populārs portāls. http://www.energy-fresh.ru/tech/design/?id=6670)

Vincenzo De Cotiis, an architect and artist (Figure 10) was born in 1958 in the Italian city of Gonzaga.He studied architecture at the Polytechnic University of Milan and in 1997 Vincenzo founded his own studio and gallery (*The Story of Carpenters Workshop Gallery.* www.carpentersworkshopgallery.com).

Figure 10. **Vincenzo De Cotiis and his interior object – a table**
(News website. ttps://www.telegraph.co.uk/luxury/design/behind-vincenzo-di-cotiis-subtly-beautiful-new-sculptural-furniture/)

Vincenzo De Cotiis' education as an architect has impressed all his design projects**.** One of the latest is a collection of furniture called En Plein Air. It includes 20 pieces of sculptural furniture, including cabinets, tables, bookshelves.

The author used a mixture of fiberglass with semi-precious stones, brass casting, resin and Murano glass.

Figure 11. **Designer Vincenzo De Cotiis furniture collection**
(The Story of Carpenters Workshop Gallery. https://carpentersworkshopgallery.com/artists/vincenzo-de-cotiis)

According to the designer, he always starts with the choice of materials. Texture and shape are very important to him. In compiling the collection, he focused on the basics of painting and sculpture, given their contradictions. At the first glance, the main function of his works is not immediately clear – each of them looks like an object of art (Figure 12). The name of the project, En Plein Air, is derived from late 19th century French artists who preferred outdoor painting or plein air. Vincenzo De Cotiis was inspired by an Impressionist style and artworks.He believes that there are no many differences between the artistic and functional parts, as they are closely interlinked. (*Website on design.* www.all4decor.ru)

Figure 12. **Furniture from the collection of designer Vincenzo De Cotiis**
(*The Story of Carpenters Workshop Gallery.*
https://carpentersworkshopgallery.com/artists/vincenzo-de-cotiis)

Synthetic and natural. The technique TERRAZZO

Experimenting with the composite materials, combining synthetic material with natural (ceramics, stones), an interesting similarity with the Italian technique TERRAZZO (Figure13) **was** found. **Small pieces of marble are combined with concrete mixes and they are often used to create interior design or its objects.**

Figure 13. **Technique TERRAZO: pieces of marble together with concrete mixes**
(*Real estate portal.* https://www.city24.lv/ru/novosti-rynka-nedvizhimosti/10841/s-vozvraseniem-mir-dizajna-zavoevyvaet-italanskij-terazzo-i-eksperimenty-s-materialami)

Terrazzo was created in the 6th century in Europe when Venetian workers discovered a new use for marble and granite remnants, concrete, clay and even goat's milk as an inexpensive way of flooring.

Nowadays, terrazo has become much more expressive because of combinations of different bright colors and exaggerated proportions.Due to the development of modern technologies and experiments, terrazzo is imitated in various new composites. Based on the experiments with terrazzo techniques and researches of materials, it is possible to create interesting art / design objects for the interior. Only in the process and in the search for new applications are the diversity and potential of the newly created material discovered. It is important that composite materials can also be combined with paints. During the experiments, one can find not only unusual combinations of materials, but also create individual artistic discoveries. (*Real estate portal*. www.city24.lv).

Experiment: polymer resin + hardener + various natural and synthetic materials

Some experiments were performed to study the information on composite materials and to be inspired by the terrazzo technique (Figure 14). It was tested whether composite materials (polymer resin, hardener) can be combined with other objects (stones, metals, glass, ceramics) and how the obtained new material can be used to create functional design objects.

Figure 14. **Anna Stalidzāne's experiments** (author's photos)

It can be concluded that the combinations of polymer resins with stones, paints or some other materials work very well together. Using this technique, you can create different types of decor and use them in the interior.

Transparent epoxy resin

Composite materials allow to combine different materials such as transparent epoxy resin with a hardener. Interesting interior design objects and creative furniture (tables, chairs, etc.) can be realized from the obtained material (Figure 15). Designers can express themselves creatively using the combination of epoxy resin paints and special inks (Figure 16).

Figure 15. **Wooden table with epoxy stains**
(*Recommendations for repairs.* https://psk-remont.ru)

Figure 16. **Painting from epoxy stains, hardeners, inks and oil paints**
(*Art school portal*. https://kazan.fluidart.ru/courses/resin/)

Abstract paintings with epoxy resin look very beautiful in the interior. Creating a painting from epoxy is a process that, on the one hand, seems quite easy and, on the other hand, requires skills, knowledge and experience how to work with the material.

Conclusions

Studying contemporary design representatives such as Savvas Laz, Dan Carson, Vincenzo De Cotiis, etc., who work with composite materials, it can be concluded that experiments, innovative techniques and creatively made materials, including composite materials, are relevant in modern design.

Scientific research shows that composite materials have such a high strength that allows to create various environmental structures, allows to make design objects and to use them in the manufacture of interior items, for example furniture. Unusual techniques, like the Italian technique terrazzo, which includes the combination of natural and synthetic materials can be used to produce composite materials. Composite materials such as epoxy resins offer a huge opportunity for creativity because they can be painted with special ink.

Empirical methods were also used during the study to verify the collected theoretical information with the help of some experiments. It was practically tested whether composite materials (polymer resin, hardener) can be combined with other objects (stones, metals, glass, ceramics) to obtain a positive result.

It can be concluded that composite materials can stimulate the inspiration of designers to create unusual objects. Further research is needed on their sustainable aspects.

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THE IMPORTANCE OF CORPORATE IDENTITY DEVELOPMENT IN ENSURING THE SUSTAINABILITY OF THE COMPANIES OPERATION

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Abstract

The importance of corporate identity development in ensuring the sustainability of the companies operation

Key Words: *corporate identity, corporate identity design, brand, logotype, start-up, sustainable operation*

Taking in consideration the competition in the market, the ability and skill of a company to sell their product, service or offer strongly depends on brand performance, quality of the product, the uniqueness of the company and its reputation. Moreover, a strong brand, a well-developed corporate identity and guidelines for its use determine recognition and a successful corporate image amongst competitors.

Taking in consideration the increasing influence of visual communication in today's digital age, corporate design responsibility in business management goes beyond traditional expectations. Corporate design is the result of collaboration between business and design. The success of a company's corporate image depends on the strength and unity of this collaboration. The company Ltd. Nature Line that is the focus of the study is a start-up that started its operations with the help of Rezekne Business Incubator. The author's article reviews and investigates the importance of corporate identity development in ensuring long-term sustainability in business operations. In order to better understand the specifics of the field of start-ups and the development opportunities that are offered to new entrepreneurs, the article also looks at the development of startups in Latvia and their strategic support today. **The aim of the study** – to identify the conditions of corporate identity design and its successful positioning, as well as the importance of its creation for successful start-up companies. As one of the methods of data collection a survey was developed. The survey uses a series of questions that analyzes the attitude of entrepreneurs need for successful corporate identity design. The questionnaire was prepared using Google form and distributed with the involvement of Rezekne Business Incubator. The period of the research is March 2019; the questionnaire consists of 2 open – unstructured questions, 2 closed – structured questions, 5 multiple-choice and 1 dichotomous questions. 10 respondents – enterprises of Rezekne county and city were surveyed. Amongst the surveyed start-ups are Ltd. Nature Line, Ltd. METTA STEEL, Zelma Kraft, LZ LATVIA, Ltd. Parka mājas, Ltd. ABC, KUUP COFFEE and other start-up companies that started their activities with the help of Rezekne Business Incubator and during their current activity have developed corporate identity design. Companies represent fields as food industry, furniture design, fashion design, manufacturing, hospitality, tourism services and other.

Kopsavilkums

Korporatīvās identitātes izstrādes nozīmīgums uzņēmuma ilgtspējīgas darbības nodrošināšanā

Atslēgvārdi: *korporatīvā identitāte, korporatīvās identitātes dizains, zīmols, logotips, jaunuzņēmums, ilgtspējīga darbība*

Korporatīvās identitātes jēdziens meklējams 1960. gados (Bick, Abratt, Bergman 2008). Korporatīvā identitāte ir pētīta dažādās disciplīnās, termina multidisciplinārā būtība ir radījusi dažādas definīcijas un konceptuālas struktūras, kas atspoguļo tās komplicēto un daudzdimensionālo raksturu (Buil, Catalan, Martinez 2016). Termina multidisciplinaritāti pierāda 1995. gadā Starptautiskās korporatīvās identitātes grupas (ICIG) "Strathclyde Statement" paziņojums (The Strathclyde Statement 2019).

Uzņēmuma spēja un prasme pārdot produkciju, pakalpojumu vai piedāvājumu, neskaitāmā konkurencē, atkarīga no zīmola darbības, preces kvalitātes, uzņēmuma unikalitātes un tā atpazīstamības. Savukārt atpazīstamību un uzņēmuma veiksmīgu koptēlu konkurentu vidū nosaka spēcīgs zīmols, izstrādāta korporatīvā identitāte un tās lietošanas vadlīnijas. Palielinoties vizuālās komunikācijas ietekmei, mūsdienu digitālajā laikmetā, korporatīvā dizaina atbildība uzņēmējdarbības vadībā pārsniedz tradicionālās ekspektācijas. Korporatīvais dizains ir biznesa un dizaina sadarbības rezultāts. Uzņēmuma korporatīvā tēla panākumi ir atkarīgi no šīs sadarbības stipruma un vienotības. Pētījumā minētais uzņēmums SIA "Nature Line" ir jaunuzņēmums, kas savu darbību uzsācis ar Rēzeknes biznesa inkubatora palīdzību. Autores rakstā apskata un pēta korporatīvās identitātes izstrādes nozīmīgumu uzņēmumu ilgtspējīgas darbības nodrošināšanā. Lai labāk izprastu jaunuzņēmumu veidošanas jomas specifiku un piedāvātās attīstības iespējas, rakstā tiek apskatīta arī start-up uzņēmumu attīstība Latvijā un to stratēģiskais atbalsts mūsdienās. **Pētījuma mērķis –** apzināt korporatīvās identitātes dizaina un veiksmīgas pozicionēšanas nosacījumus, kā arī tās izveides nozīmi start-up uzņēmumu sekmīgas darbības nodrošināšanā. Kā viena no datu ieguves metodēm pētījumā izmantota aptauja, kurā ar anketēšanas palīdzību, tiek analizēta respondentu – jaunu uzņēmumu nostāja par veiksmīgas korporatīvās identitātes dizaina izveides nepieciešamību mūsdienu dizaina un uzņēmējdarbības telpā. Anketa sastādīta, izmantojot Google veidlapu un izplatīta ar Rēzeknes biznesa inkubatora iesaisti. Anketēšanas periods – 2019. gada marts, aptaujas anketā ir

2 atvērtie jeb nestrukturēto atbilžu jautājumi, 2 slēgtie jeb strukturēto atbilžu jautājumi, 5 daudzpusīgās un 1 dihotomiskās izvēles jautājums. Tika aptaujāti 10 respondenti – Rēzeknes novada un Rēzeknes uzņēmumi. Aptaujāto jaunuzņēmumu vidū ir SIA "Nature Line", SIA "METTA STEEL", "Zelma Kraft", "LZ LATVIA", SIA "Parka mājas", SIA "ABC", "KUUP COFFEE" un citi start-up uzņēmumi, kas savu darbību uzsākuši ar Rēzeknes biznesa inkubatora palīdzību un savas pašreizējās darbības laikā izstrādājuši uzņēmuma korporatīvo dizainu. Uzņēmumi pārstāv pārtikas rūpniecības, mēbeļu, modes dizaina, ražošanas, viesmīlības, tūrisma pakalpojumu un citas jomas. Raksts tika izstrādāts, balstoties uz teorētiskās un empīriskās daļas veikto analīzi un izdarītajiem secinājumiem.

Introduction

Brand identity is considered to be a strategic business tool and a value that forms an understanding, increases recognition and communicates. With uniqueness and high quality, it creates high added value among the competition. Following brand identity, uniform standards and striving for quality are the priorities of a successful business (Wheeler 2013).

In the age of globalisation, brand management is not just a matter of dignity anymore but rather an important tool for economic survival. Brand management is the most important contribution of commerce to the everyday life of society. Brand management has penetrated the field of education, sports, fashion, tourism, arts, theatre, literature, as well as regional and national awareness (Olinss 2005). Brand management also has an important role in entrepreneurship.

Any successful business is based on three components:

- Technical or handicraft skills,
- Knowledge of financial matters;
- Sales skills (Olinss 2005).

The ability of the company to sell products, services or offers in the circumstances of countless competition depends on the brand activity, product quality, uniqueness and recognition of the company. Where as recognition and successful general image of a company among competition is determined by a strong brand, corporate identity design and its usage guidelines.

With the increasing impact of visual communication in the modern digital age, the responsibility of corporate design in entrepreneurship management exceeds traditional expectations. Corporate design is the result of cooperation of business and design. The success of the corporate image of a company depends on the strength and unity of such cooperation (Klanten, Ehmann, Sinofzik 2012). Like entrepreneur Thomas J.Watson, Jr. said "Good design is good business" (Wheeler 2013).

A company brand acts as a pointer in the bustling market, as a reference point in the ever-changing world, arranging values and characteristics in recognisable packaging, which the customer looks at with various levels of trust and acceptance (Brauns 2007).

Surrounded by the infinite choice of products and services, companies are looking for ways to create an emotional connection with the client. A strong brand stands out in a densely overcrowded market. The way the brand is perceived affects its success regardless of whether it is a start-up, a non-governmental organisation, or a product. According to American businessman Jim Stengel, a company is as strong as its brand, and nothing else offers business managers, in the modern visual environment, such a strong tool for achieving success. The brand has become a global success currency (Wheeler 2013). A brand is an object or tool for information exchange between the manufacturer and the consumer (Lury 2004).

Since the company *SIA "Nature Line"* is a start-up, which started its operation with the support of the Rēzekne Business Incubator, the authors review and study in this article the importance of corporate identity design for ensuring sustainable operation of a company.

***Start-up* Company Development in Latvia and their Strategic Support Today**

The Cambridge Dictionary online defines a *start-up* as 'a small business that has just been started' (Cambridge dictionary 2020). In Latvian, according to the Academic Term Database, it is called *jaunuzņēmums* (Akadēmiskā terminu datubāze 2018).

The creation of new organisations – religious, military, political or philanthropic – has been an integral feature of human history. Primitive origins of entrepreneurship are dated 1816 (Reynolds, Curtin 2011).

There are currently at least 200 million people in the world who are continuously involved in the business creation process; 200 million more are the owners or managers of new companies, less than a few years old. These calculations were made by the Global Entrepreneurship Monitor (GEM) research programme, which covered 75 countries, about 80% of the world population. The true total number of people involved in the start-up process globally could be larger – close to a quarter of a billion people in each position (Reynolds, Curtin 2011).

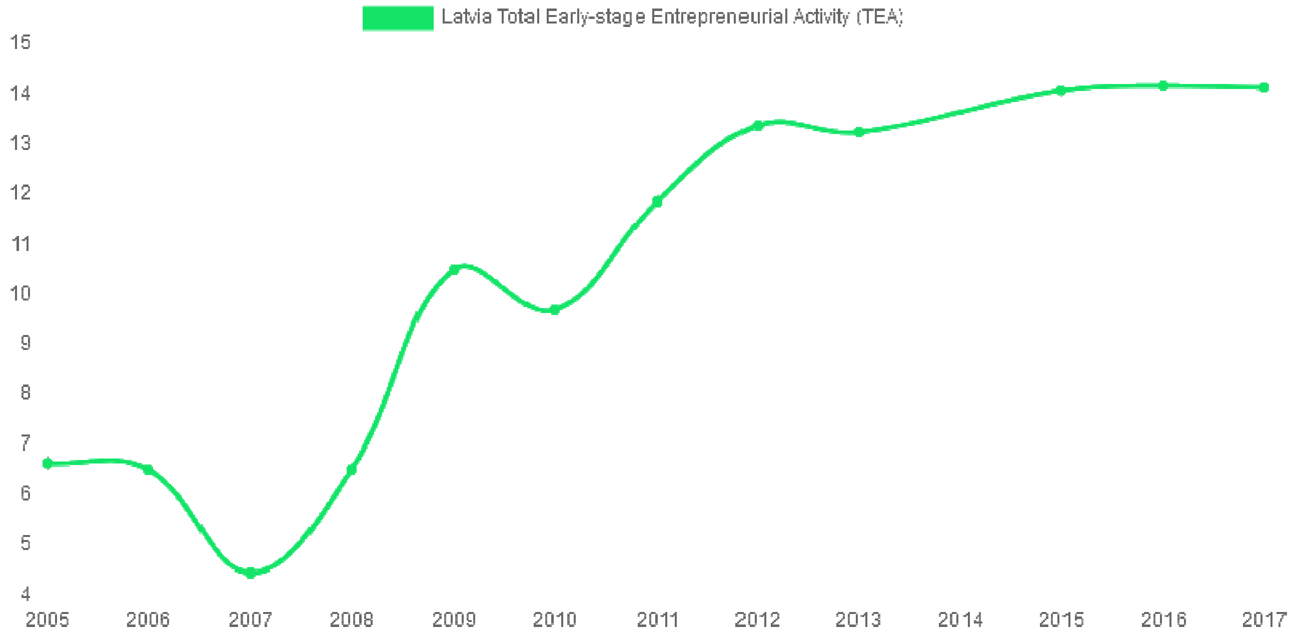
In modern society, entrepreneurship can be considered the driving force of innovation and development (Hougaard 2005).

In Latvia too, start-ups are becoming more active in the entrepreneurial environment in the latest years, which is supported by GEM statistical data (see Table 1), which show the correlation of initial-stage entrepreneurship activity in Latvia, including entrepreneurs who are at the start-up creation stage or have been actively working for 42 months since the company was created.

The data show that start-up activity in Latvia since 2010 has been continuously growing without sharp falls and in the latest years has remained stable in a high position.

According to the statistical data of the information summarised in the "Lursoft" company register, 10 443 new companies were registered in Latvia in 2019 (Lursoft statistika 2020).

Table 1. **Correlation of start-up business activity**
(https://www.gemconsortium.org/data#)



Even though overall the number of companies in the world is growing, 40% of new companies remain in operation for about five years and in the long term, and 93% of companies become bankrupt. The reasons for such a concerning level of failure vary; however, big responsibility lies in low understanding of starting a business, poor planning and understanding of the entrepreneurial environment and company positioning (Harris 2006).

To ensure the start of successful operation of a start-up and its sustainable operation in the long term, there are state accredited companies as well as non-governmental organisations in Latvia and in the world that design different programmes, courses and trainings, providing young entrepreneurs with the opportunity to learn about the entrepreneurial environment, to improve their opportunities for implementing their business ideas and to receive financial support in the company creation process.

Support for new companies, consultations, and cooperation in Latvia is successfully provided by the Investment and Development Agency of Latvia *(LIAA)*, which is a direct administration government authority founded in 1993 and serving under the Ministry of Economics of the Republic of Latvia. *LIAA* helps bring Latvian products to the foreign market, attract investments to Latvia, create and grow new companies, as well as innovate and make Latvia an attractive tourist destination (Par LIAA 2020).

To promote the formation and development of micro-, small and medium-sized enterprises, *LIAA* is implementing a project co-founded by the European Regional Development Fund

"Development of Business Incubators in Latvia" as a driving force for start-up companies; 15 business incubators are operating in the regions (Par LIAA 2020).

A business incubator is a combination of infrastructure and staff created to help new viable and competitive businesses develop, providing natural persons and businesses with the environment, consultations, trainings and events concerning general matters of entrepreneurship, mentor support and grants required for starting and developing an enterprise (Biznesa inkubatori 2020).

Looking through the prism of design and business, the advantage of start-up companies and small businesses is the experimental freedom, which often results in the beginning of a successful, unique, and innovative entrepreneurship (Klanten, Ehmann, Sinofzik 2012).

The start-up *SIA "Nature Line"* also started its operation as a company incubated by the Rēzekne Business Incubator, which, in the company formation process, making use of the consultations, courses, co-funding, and other opportunities offered by the business incubator, successfully continues its start-up activity. Considering the specific nature of the field of the company *SIA "Nature Line"* – creating organic products using the innovative sublimation technique – the authors review in this article the organic company development trends and current issues in Latvia and in the world.

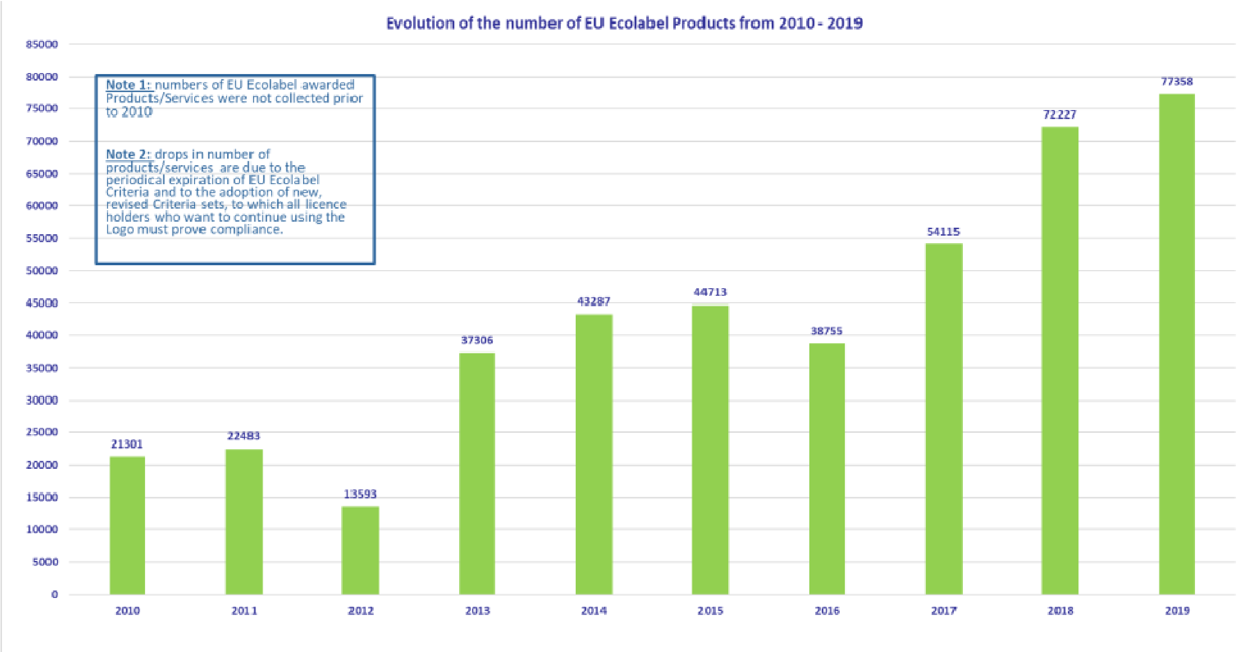
Organic Company Development Trends in Latvia and Globally

Organic food products are the result of organic farming. Organic farming is a farming system that strives to provide the customer with fresh, tasty and real food by respecting the natural ecosystem, following the practice based on reducing the human impact on the environment, ensuring that the operation of the farming system is as natural as possible (Par bioloģiskās lauksaimniecības produkciju 2019).

Director of the Association of Latvian Organic Agriculture *(LBLA)* G. Norkārklis points out that the turnover and demand for organically farmed products is growing, forming a gradual and stable development with no signs of significant change on the overall European and global market in the nearest future (Cilvēki arvien vairāk izvēlas bioloģiskās 2019).

The research data summarised by the European Commission show clear popularity of ecolabel products. 1623 licences have been issued since September 2019 for 77 358 products (goods and services) available on the market (see Table 2), which is almost twice as many compared to 2016 (Facts and Figures, 2019).

Table 2. **Graph of EU eco-label product evolution**
(https://ec.europa.eu/environment/ecolabel/facts-and-figures.html)



Organic farming is also part of a broader product supply chain, which includes product processing, distribution, retail, and the customer. Each stage of the chain has an important role in providing benefit with regard to the production of organic food in different sectors, including the following:

- Environmental protection;
- Animal welfare;
- Customer trust;
- Society and economy (Par bioloģiskās lauksaimniecības produkciju 2019).

The company *SIA "Nature Line"* has chosen to produce their goods using the sublimation technique, obtaining different natural and forest products, which can be consumed as food supplements, flavourings, snacks, or something else; the final product is rich in vitamins and nutrients, easy to transport and use.

In physics, sublimation is the direct transition of a substance from the solid to the gas state or from the gas state to the solid state (Sublimācija 2020). Sublimation in the food industry (or freeze drying or lyophilisation) is the process where products are frozen by breaking the product cells through which moisture is separated from the product in the vacuum, resulting in a dry final product (Ābolu čipsi un pupu kraukšķi 2017).

The Latvia University of Life Sciences and Technologies *(LLU)* Faculty of Food Technology professor D. Kārkliņa notes that different dried products have appeared on the shelves of Latvian stores, such as apple chips "Garden Snack", roasted broad beans "Pupuchi", chewable bee bread pastillas, and crunchy cheese snack “Archee”. Significant emphasis is put on functional foods and foods with high nutritional value, as well as products designed from natural sources (Ābolu čipsi un pupu kraukšķi 2017). The supply is diverse, and the demand for the goods is growing.

SIA “Nature Line” sees the position of their start-up company in the export market, believing that conquering the Latvian market is more difficult, which is also supported by the statements of experts.

Board chair of the Latvian Federation of Food Companies *(LPUF)* I. Šure states: “*The main preconditions that currently determine innovation in the food industry are competition and desire to conquer new markets. Companies need to think not only about attracting the attention of consumers and business partners, but also about maximum reduction of manufacturing costs, which can be achieved with innovative products and a modern manufacturing process. The most active companies in terms of innovation are the ones that want to work on export markets*” (Ābolu čipsi un pupu kraukšķi 2017).

Product and business innovation is an integral part of corporate growth. An insight into the improvement of the design process can help achieve better company operation results. One of the company innovations that can be mentioned is “design-inspired innovation”, which is based on improving the overall user experience, the system and the process (Meyer, Marion, Tucker 2010). Innovation concerns the company attempts to introduce new products, methods, processes, or materials on the market. If the critical success factor of the invention is technical, innovation is also a commercial novelty (Hougaard 2005).

Global trends and statistical data show rapid growth of the popularity of the eco-sector, which is also supported by the information provided by the director of the Rēzekne Business Incubator, which emphasises that the fields of entrepreneurship that currently demonstrate superior development in the region are healthy lifestyle, catering services, food production, and entertainment services.

To obtain more information about the motives of young entrepreneurs for starting a business and about the role of corporate identity design, the authors analyse a start-up company survey in this article.

Start-up Company Survey Analysis

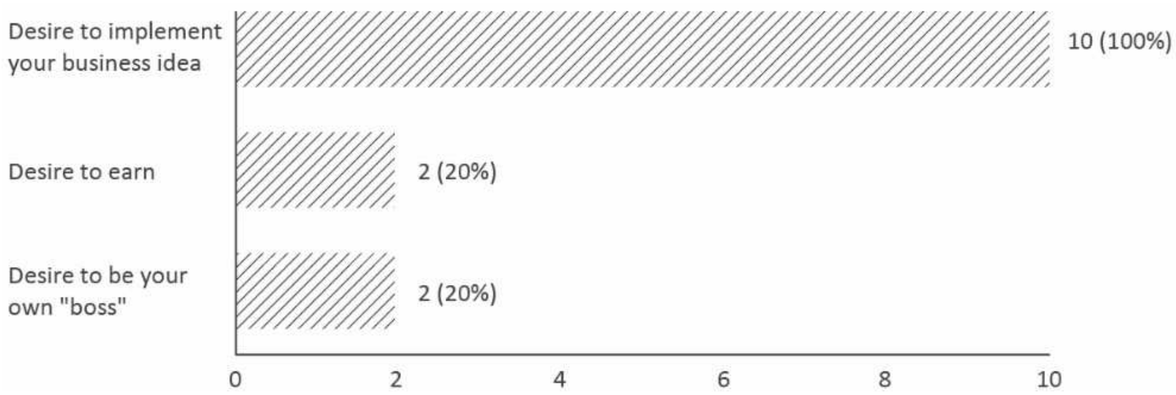
One of the data acquisition methods used in the study is the survey where a questionnaire is used to analyse the attitude of the respondents – young entrepreneurs – regarding the necessity to create a successful corporate identity design in the modern environment of design and entrepreneurship.

The first two questions of the questionnaire – company name and field of activity – allowed the authors to learn about the profile of the respondent. Amongst the surveyed start-ups are Ltd. Nature Line, Ltd. METTA STEEL, Zelma Kraft, LZ LATVIA, Ltd. Parka mājas, Ltd. ABC, KUUP COFFEE and other start-up companies that started their activities with the help of Rezekne Business Incubator and during their current activity have developed corporate identity design. Companies represent fields as food industry, furniture design, fashion design, manufacturing, hospitality, tourism services and other.

1. What were the key motives for starting the creation of a new company?

The question was presented as a multiple-choice question. All the respondents said that the key motive for starting the creation of a new company was the desire to implement their own business idea; two respondents also marked the desire to earn money and to be their own "boss" as a concurrent motive (see Table 3).

Table 3. **Data gathered from respondents for question No. 1**



1. What support have you received from the Rezekne Business Incubator?

The question was presented as a multiple-choice question in order to learn about the popularity of the range of offers available from the business incubator and the most demanded support services among start-up companies. The majority of the respondents, at the beginning stage of the company, received consultations, training, as well as co-funding services from the Rēzekne Business Incubator; four companies also received grant support.

2. Have you received co-funding for brand and corporate identity design services?

The question was presented as a dichotomous choice question. The majority or 70% of the respondents, at the formation stage of the company, chose and received co-funding for corporate identity or brand design services at the Rēzekne Business Incubator.

3. What support have you received with brand and corporate identity design?

The most popular types of support with brand and corporate identity design received from the Rēzekne Business Incubator mentioned by the companies are consultations and trainings; half also received co-funding for this service; whereas one company mentions graphic design of marketing materials as the support they received.

4. How important is corporate design for promoting the activity of your company?

On the closed or fixed choice response scale, where 1 was marked as unimportant, 4 – as important the majority or 90% of the respondents recognise corporate design as important for promoting company activity.

5. What values in the corporate design and image of your company do you consider important?

The most important value in the company corporate design and image the respondents (90%) note is simplicity; sustainability among companies is also noted as an especially valuable feature. 60 and 50% of the respondents highlight originality and authenticity; whereas 30% – flexibility.

6. Which corporate design elements were the most important for starting the operation of the company?

As the most important corporate design element for starting the operation of the company the majority of the respondents (90%) name the company concept. Equally important (50%) are also the company logo and website. 40% of the companies name the creation of a style guide as the most important element. It can be concluded that, at the stage of starting the company operation, the design of advertisements, visual communication materials and product packaging is secondary.

7. Has the corporate identity design promoted the competitive capacity of your company in the entrepreneurial environment?

On the closed or fixed choice response scale, where 1 was marked as No, it has not, 4 – Yes, it has the majority or 90% of the entrepreneurs surveyed noted that the design of a visual image has promoted the competitive capacity of their company in the entrepreneurial environment. The survey results allow concluding that corporate identity design is popular with modern start-up companies, which is evident from the specific nature of the offers from the business incubator, as well as the active application by companies to receive consultations and co-funding in the company development process. Corporate design is important for promoting company activity; the values considered the most important in the company corporate design and image are simplicity and sustainability, which shows the modern trends in graphic design and the thinking of entrepreneurs in the long term. The corporate identity design element highlighted by companies as the most important at the stage of starting the company operation is the concept. The logo as the basis of graphic design in corporate design is also highlighted as an important element, as well as the creation of a website, considering the modern opportunities and popularity of digitalisation. For the respondents surveyed, corporate identity design has promoted the competitive capacity of their companies in the entrepreneurial environment, which testifies to the topicality of the study.

Conclusions

A study was performed in the framework of the article on the importance of creating a corporate identity to ensure successful operation of a start-up company. Literature and data on the popularity of start-ups and organic companies were studied; start-up company survey questionnaires were analysed in order to learn more about the field of activity and the specific nature of the creation process of the company *SIA "Nature Line"*, as well as to obtain valuable and professional opinions, recommendations and conclusions from specialists in different fields.

While working on this study, the authors have come to the following conclusions:

- Uniform corporate identity reflected in the agreement between the elements of the company's design, communication and philosophy is a strategic resource for developing successful company activity.
- Corporate design, which is a reflection of the company aims, visions and main values in a visual language, is an important and integral part of corporate identity.
- The urgent issue of ecology has encouraged sustainable thinking to become an important part of brand creation.
- Alongside entrepreneurship and graphic design, digital technologies are also present in the company corporate design as well as their effect in the design process.
- A strong brand is sustainable and authentic, and corresponds to the company's mission, story, cultural aspect, company values, and personality.
- In the modern age of information flow, corporate design needs to be simple, functional, and sustainable.
- Statistical data in the field of activity of start-ups and organic product companies show rapid development of these fields and popularity among start-ups.
- The specific nature of the support available from the business incubator and the analysis of the start-up survey questionnaires confirm the popularity, meaning, and value of quality corporate identity design that corresponds to the company identity for promoting successful operation of a start-up company.
- Graphic elements reflect the product value, and the design requirements – simplicity, modernity, and sustainability – define successful corporate design and graphic design of a company logo.
- Considering the special situation of a start-up company, the initial stage of starting independent operation, corporate design involves circumstances that hinder the receipt of specific information because the company activity is still not structured enough; parallel experimental

work is going on concerning the application of the product processing technology and the design of product recipes.

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DESIGN OBJECT IN THE URBAN ENVIRONMENT: DEVELOPMENT AND SUSTAINABILITY

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Abstract

Design object in the urban environment: development and sustainability

Key Words: *sustainable design, urban environment, object, sculpture, installation*

Conceptual design objects are playing an increasingly important role in the development of modern urban environment, which in the 21st century are created as creative sculptures and installations as well as in their realization and presentation unconventional ideas are used: from the opportunities created by digital technology to performance art.

In the context of the era, variously designed objects with their visual form and emotional content attract public attention and create the image of each city functionally and stylistically linked to the architecture of the surrounding buildings and urban planning areas. It promotes social activity, entertainment and quality leisure.

The development of the public environment today is of a changing nature which is significantly influenced not only by the desire for an aesthetically attractive and interesting urban space, but also by objective factors: location and feasibility, climatic variability, choice of design material, which is also affected by the economic factor – sometimes the client is reluctant to invest in expensive, contemporary, high-quality materials and development technologies, therefore, more economical ways are being sought, which can often reduce the durability of unique design objects in an urban environment. The goal of the research is to analyze nowadays the brightest trends of design objects and possibilities of sustainability in different urban environments, based on concrete examples from Latvia and abroad.

Kopsavilkums

Dizaina objekts pilsētvidē: attīstība un ilgtspējīgums

Atslēgvārdi: *ilgtspējīgs dizains, pilsētvide, objekts, skulptūra, instalācija*

Mūsdienu pilsētvides attīstībā arvien lielāku lomu ieņem konceptuāli dizaina objekti, kas 21. gadsimtā tiek radīti kā kreatīvas skulptūras un instalācijas, kā arī to realizācijā un prezentācijā tiek pielietotas netradicionālas idejas: no digitālo tehnoloģiju radītajām iespējām līdz pat performanču mākslai.

Laikmeta kontekstā daudzveidīgi risināti dizaina objekti ar savu vizuālo formu un emocionālo saturu piesaista sabiedrības uzmanību un veido katras pilsētas tēlu, funkcionāli un stilistiski sasaistās ar apkārt esošo ēku arhitektūru un pilsētvides plānojuma zonām, kā arī veicina sociālo aktivitāti, izklaidi un kvalitatīvu brīvā laika pavadīšanu.

Publiskās vides attīstībai mūsdienās ir mainīgs raksturs, ko būtiski ietekmē ne tikai vēlme pēc estētiski pievilcīgas un interesantas pilsētas telpas, bet arī objektīvi faktori: realizācijas vieta un iespējamība, klimatisko apstākļu nepastāvība, dizaina objektu materiālu izvēle, ko iespaido arī ekonomiskais faktors, – pasūtītājs dažreiz nevēlas ieguldīt naudas līdzekļus dārgos, laikmetīgos, kvalitatīvos materiālos un izstrādes tehnoloģijās, tādēļ tiek meklēti ekonomiskāki paņēmieni, kas bieži vien unikāla dizaina objektu ilglaicīgumu pilsētvidē var samazināt. Šī pētījuma mērķis ir analizēt mūsdienās spilgtākās dizaina objektu tendences un ilgtspējīguma iespējas dažādās pilsētvidēs, balstoties uz konkrētiem Latvijas un ārvalstu piemēriem.

Introduction

Today’s rapid urban construction and urban development show that In the 21st century, respectively, during the last twenty years, comprehensive changes have taken place in the selection and development of design objects in the improvement of the urban environment. It is fair to say that the need to build buildings as quickly and as quickly as possible does not, for the most part, contribute to improving the quality of public space. Meaningful application of design in its diversity today is one of the most important ways to improve the quality of the urban environment and create communication, but the appearance of design objects and the implementation of their complex occurs less often, rather – rarely, significantly influenced by economic and social factors.

The urban environment (streets, squares and parks) as an environment for the implementation of public activities has existed since the beginnings of cities. Its concept of sustainability derives from the main goal of sustainable development and the application of ecological principles to the planning, creation and maintenance of the urban environment. Sustainable development is "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (What is Sustainable Development? http://www.worldbank.org/depweb/english/sd.html). A sustainable urban environment must be economically, ecologically and socially sustainable.

The presence of design objects gives new and conceptual content to the urban environment, expanding and deepening its range of functional qualities.

The object of design is one of the facts forming the quality of public space, which makes it unnecessary for people to stop and research (Aymonino, Mosco, 2006).

With their help, the direction to deepen the informative-emotional capacity of the room is marked. Design objects in the urban environment attract public attention around them and form functional links with the surrounding buildings and areas, as well as promote social activity that ensures socialization, entertainment and good time, where a person comes into contact with the visual and emotional impact. Their scale and significance varies – from a small object attracting attention in the recreation area to a recognizable image at the city level.

Today, design objects are an important factor in the cultural and economic life of the country, as well as in ensuring the well-being of society. Spiritual values are gaining more and more importance in human life, including the organization and aesthetics of the surrounding spatial environment – values that are also the creators of our design. Today, they provide significant and diverse social and cultural values, enhance people's quality of life, and can play an important role in shaping the identity of the local community.

In the contemporary world, the boundaries between different fields of art are beginning to converge, and architecture is also seeking inspiration not only in sculpture, but also in installations and digital technologies. Digital technologies, combined with new, contemporary materials, make it possible to create new, unnatural forms that were previously impossible, avoiding various restrictive preconditions, and to reveal to the general public how unusual design objects can exist in urban environments.

The goal of the research is to analyze nowadays the brightest trends of design objects and possibilities of sustainability in different urban environments, based on concrete examples from Latvia and abroad.

The research is based on Ojāra Spārīša (2007), Aldo Ajmonīno (2006), Valerio Paolo Mosco (2006) and others sources of scientific literature.

Environmental sculpture

Beginning in the 1950s, artists began to take art out of museums in the streets and countryside. In the 1960s, objects intended for a specific place were used more and more often to denote an object in which the context of its physical location was studied. (Dempsija, 2018).

An environmental sculpture successfully placed in the urban landscape creates a visually aesthetic pleasure for a person and quality for a public outdoor space. An example of this is sculptors Olga Šilova's sculpture "Tower Counter" was created in 2007 in Riga, on the left bank of the Daugava, opposite the Old Town (see pict. 1). The sculpture is plastically expressive and proportionally successfully seated in its allotted place. In this case, the architect's vision was also important – the sculpture was not created on a traditional pedestal, but placed on the lawn, thus creating closer contact with people. (Dekoratīva skulptūra Rīgas torņu skaitītājs http://www.rigaspieminekli.lv/?lapa=piemineklis&zanrs=3&rajons=5&id=156). The sculpture is very visible when moving along the Vanšu bridge, looking from the shore of the Old Town, as well as sailing along the Daugava.

Picture 1. **Olga Šilova "Tower Counter"**
(https://www.olgasilova.lv/darbi-vide-2/8-andris-eglitis/)

Finn Eirik Modahl „Genesis/Ungle Olav" (2016) (see pict. 2), a huge sculpture of a young man emerging from the water, is a site-specific object in Sarpsborg, Norway (Radīšana/Jaunais Ūlavs https://www.modahl.com/).

Environmental sculpture „Genesis/Ungle Olav" recalls the founder of the city, while acknowledging the continuing evolution and change to which cities and nations are subject if they hope to continue in the future. This object refers to and connects with the surroundings and its inhabitants (Dempsija, 2018).

Picture 2. **Finn Eirik Modahl „Genesis/Ungle Olav”**
(https://www.modahl.com/)

Environmental installation

An environmental installation has a conceptual message, the perception of which requires a moment to delve and go deeper to understand the meaning of the message. Such an example is Aigars Bikše's installation "Mother Earth's Office” (see pict. 3), created in Riga's Great Cemetery in Vidzeme suburbs, Riga. The project is dedicated to people whose contribution to the history of Riga and Latvia is significant, but the memorials for their burials in the Great Cemetery in Riga have disappeared. The object confirms the desire to remember and recall the legacy of the past. At present, only about 150 important burial sites in the history of Latvia have been preserved or restored in the Great Cemetery. It is not possible to restore the old cemeteries, and the memorial site Mother Earth's Office in the Great Cemetery draws public attention to identifying its past. Human experience in contact with volume as a functioning whole is based on contact with its surface (by volume means a living person, an unbroken table, a workable pump, etc.). Knowledge of the structure of the volume and its components can be acquired by dividing, deducting the whole, thus acquiring other surfaces with which contact was not possible in the presence of the whole. This confirms other experiences of the structure of the whole, which are different from the previously learned. Mother Earth's office is designed as a modern office, where the names of the dead people, changing on the monitor screen, record the end of the whole existence. It is a form of verbal truth that binds to human consciousness, much like knowledge of the inner structure of an undivided volume. (Zemes mātes birojs https://jauns.lv/raksts/zinas/227953-izdemolets-zemes-mates-birojs-lielajos-kapos).

Picture 3. **Aigars Bikše "Mother Earth's Office”**
(https://bikse.lv/wp-content/uploads/2016/04/zm002-2.jpg)

A design object in an urban environment promotes social activity, which provides socialization, entertainment and good time, where a person, after a moment's delay, comes into contact with the visual and emotional impact of design objects. Water cascade "Drops" created by sculptor Gleb Panteleev in Ventspils (see pict. 4) has given new visual content to the urban environment, expanding and deepening its functionality. The environment where the design object is located is the old projects of functionalism – the new districts of the Soviet era, which have created an impersonal environment. The desire to bring "freshness" and nature (in this case water, water chilling) created a cascade of water on the natural slope of the yard during the students' rest, through which water flows in a shallow stream a few centimeters thick and breaks with a small waterfall. On the sloping surface in white metal (aluminum) are formed three stylized drops of water – the largest two meters high and each subsequent smaller (Strūklaka Lāses https://www.redzet.eu/photo/struklaka-lases-pie-ventspils-augstskolas-V-142-15/view/Str%c5%abklaka_%22L%c4%81ses%22).

The design object together with the fountain creates a peaceful and pleasant atmosphere for students, where to relax from study and stress. The design object encouraged not only students to use it, but also the surrounding residents – to come to relax, talk and spend their free time. "Drops" were unofficially called "student tears", creating a semantic belonging to the existing environment. This is a great contribution that an urban design object can make to a public outdoor space.

Picture 4. **Gleb Panteleev „Drops"**
(https://www.ventspils.lv/lat/pilseta/18807-iestajoties-pavasarim,-ventspili-ieslegs-struklakas-(foto)

In London, the square at Norman Foster The built town hall contains five environmental objects from the series „Full Stops" (see pict. 5), created by a sculptor Fiona Banner. They are made in basic geometric shapes and are displayed in a large area with the names: Slipstream, Optical, Courier, Klang and Nuptial. Black objects draw attention well in contrast to the narrowly long, light gray stone tiles of the square and the glazed architectural facades. Placed bullets create significant dynamics and people's attention around them. While in the square for a while, it is very good to notice that the bullets make people come and check that the black-painted bronze bullets are stationary. They engage people in action, communication and entertainment. Such design objects influence the content and structure of the urban environment – they give the urban environment a new scenario, which is necessary for both the public space and the city as a whole to make the daily life of residents as well as tourist travel more interesting. (Full Stops http://www.fionabanner.com/words/morelondon.htm).

Picture 5. **Fiona Banner object from the series „Full Stops"**
(http://picturesandpaintings.org.uk/london-city-hall.html)

Design objects often give new life to useless and obsolete things. Designer group "Kingyoby" to be involved in 2011 created a new urban object "Golden Fish Aquarium" (see pict. 6) from obsolete telephone booths, which have lost their relevance due to the rapid development of technologyi(JapaneseCollectiveTurnsOldPhoneBoothsIntoAquariumshttps://www.treehugger.com/gadgets/japanese-collective-turns-old-phone-booths-aquariums.html).

Old obsolete telephone booths were transformed into a two-part ecosystem inhabited by bright goldfish. This urban installation promotes the social activity of the public outdoor space not only as an attractive design object, but also as a meeting place for local residents. (Old Phone Booths Transformed Into Goldfish Tanks on the Streets of Osaka https://inhabitat.com/kingyobu-transforms-old-phone-booths-into-goldfish-tanks-on-the-streets-of-osaka/)

At night, the tank shines from the inside, illuminating the city squares in which they are placed. The filters keep the water clean and clear, but the top opens like a normal tank to feed the fish (Old Phone Booths Transformed Into Gold fish Tanks on the Streets of Osaka https://inhabitat.com/kingyobu-transforms-old-phone-booths-into-goldfish-tanks-on-the-streets-of-osaka/).

Picture 6. **Designer group “Kingyoby” urban object “Golden Fish Aquarium”** (https://i.pinimg.com/originals/27/1e/6b/271e6b51bde16bd1fe7ec6d3a77ef301.jpg)

Mobile environmental objects

A sculpture or design object is usually created for a specific place, taking into account its special conditions and preconditions. Design traveling object "Kissers" created by Olga Šilova (see pict. 7), shows that a design object can be equally well located in several places.

Initially, it was located in Bastejkalns near the "Swan House" on the side of the Valka canal, where it echoed very organically with the meanders of the canal, the large trees, creating a desire to approach it. It was then exhibited in Ventspils at the bus station at Kuldīgas Street five and then in St. Petersburg. In this place, the design object was placed on the sidewalk, ignoring the environmental guidelines. This hindered the movement of pedestrians because people had to walk around it, thus creating confusion and even anger. Finally, the design object reached the theater square in Limbaži, where the locals called it "Romeo and Juliet". The sculptor engraved various texts on the scale of the design object and was allowed to scratch the visitors' messages. Thus promoting a specific form of communication directly involving the public (Vides objekts Bučotāji https://www.redzet.eu/photo/bucotaji-telniece-o-silova-V-006-18-LM).

Picture 7. **Olga Šilova „Kissers”**
(https://www.olgasilova.lv/darbi-vide-2/)

A design object can also be created temporarily – for an event, exhibition or performance, the impact of which on the quality of a public space is only during its existence, but if successful in terms of visual spatial quality, message and concept, it attracts not only many people, as a result of increasing the intensity of usability, but also promotes intensive communication in the public space.

Such an example is the "Talking Stones" (see pict. 8) created by architect Ingurds Lazdiņš and artist Ēriks Stendzenieks. They were built on previously known squares in six French cities, which, like cities, were similar in nature. Four cities were chosen from them: Paris, Bordeaux, Strasbourg and Lyon. The stones with the central pavilion are deliberately set in a medium-sized historic square in Paris with the buildings of that time and its historical details. The pavilion has arched entrances that connect to the historic arches on the facades of the surrounding buildings. The arches of the pavilion create a hard-to-read associative moment that if there were a stone inside that would fly out as a result of the explosion, then it would leave a hole (arch) of about the same size. The play of the forms "positive with negative" forms the tension between these elements forming a unified whole. The conceptual solution of the project envisages that nine stones will be placed in the city squares, which will be enlivened by human faces projected on them. Each stone has only its own temperament and character traits, as well as its own themes, which it tells the visitor – nature, sea, society, entertainment, architecture, history, language, singing, folklore, cuisine, etc. The stones operated in three modes: sleep mode, when no one was nearby; in wakefulness mode, when stones react to movement; and in active narration mode, when they introduce visitors to the corresponding topic about Latvia. In this case, there are two levels of influence on the viewer – the plastic sculptural influence and the informative message of the stones. In general, this traveling environmental object promotes informative and educational communication with the local population about the state of Latvia in the public outdoor spaces of French cities (Runājošie akmeņi https://www.apollo.lv/4766505/ingurda-lazdina-runajosie-akmeni-prezentes-latviju).

Picture 8. **Ēriks Stendzenieks „Talking Stones”**
(https://a4d.lv/bildes/lazdina_runajosie_akmeni_un_luvra__attelu_galerija/)

Design object as a symbol of the city

An example of a design object that has become one of the symbols of the city is the sculptor of Indian origin AnishKapoor „Cloudgate” (see pict. 10) A grand design facility located in the heart of Chicago's Ilionosa Millennium Park AT&T Square. The shape of the object is shaped by the shape of a drop of mercury. It is covered with 168 stainless steel plates, which are fused together into a single mass without seams and polished as a complete mirror surface, which reflects the environment – the sky, the city and people. People like to look at themselves, so they unconsciously identify with the environment. The object has an organically arched raised middle part, through which you can pass, which without reflections creates even more intrigue – the desire to come and see what is under the sculpture. The blob is located in the center of a large square, formed on one side on the same level with the park, on the other hand due to the fall of the terrain – on the terrace (CloudGate https://www.choosechicago.com/articles/tours-and-attractions/the-bean-chicago/).

Picture 9. **Anish Kapoor „Cloudgate"**
(https://spainsnews.com/gang-members-vandalize-the-bean-main-tourist-icon-of-chicago/)

In the center of Daugavpils, in the square near St. Peter's Chains Roman Catholic Church, in honor of Daugavpils city festival, In 2018, a new urban facility was installed "I love Daugavpils" (see pict. 10) whose author is the author Romualds Gibovskis. The big heart with the inscription "Daugavpils" is illuminated, so it attracts people's attention both day and night. The object of urban design not only attracts the attention of passers-by, but is also a place for meetings and photography (Es mīlu Daugavpili https://www.arcgis.com/apps/MapJournal/index.html?appid=576411304e264ba280e1e5b47138753e).

Picture 10. **Romualds Gibovskis „I love Daugavpils"**
(https://www.visitdaugavpils.lv/ru/daugavpili-uzstadits-jauns-vides-objekts-sirds/)

Conclusions

Conceptual design objects, which are created in the 21st century as creative sculptures and installations, as well as non-traditional ideas are used in their realization and presentation, play an increasingly important role in the development of today's urban environment.

Today, the brightest trends in design objects are visibility, accessibility, message and emotional aspect, which not only make people around them want to get closer to the design object, but also attract tourists from other countries.

A design object requires a space around itself where a lot of people who come to see the object can stay. Design objects in the urban environment attract not only the attention of passers-by, but as one of the images of the city, tourists from other cities and countries go to see, thus contributing not only to the aesthetic quality of the urban environment, but also to surrounding public buildings and the city as a whole.

Design objects give the urban environment new ideologically design content, expanding and deepening its range of functional qualities. Design objects in the urban environment attract public attention around them and form functional connections with the surrounding buildings and areas, as well as promote social activity that ensures the socialization of people.

The longevity of a work of art depends on the choice of material due to climatic conditions. However, the choice of material nowadays is often influenced by the economic factor – the customer does not want to pay for quality material, that is, does not want to invest in longevity. Therefore, more economical methods are being sought.

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GRAPHIC DESIGN FOR LITERACY LEARNING BOOKS

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Abstract

Graphic design for literacy learning books

Key Words: *graphic design, ABC book, literacy, visual presentation of children books, survey*

In the era of modern technology no one is sceptical anymore about the importance of images in process of learning new information, however in society there are many opinions about relevance of books when it comes to improving literacy. It creates a question – if the changes of a new era, where children are introduced to technology at an early age also change the requirements of the book design in connection with perception of the information.

Our affiliation to a certain group of people or nation is described by the language that a child learns from birth in direct and indirect ways. Language has an important role in preservation of a nation and statehood, especially for a relatively small country like Latvia.

Globalization processes have an impact on languages of small countries and they become more endangered, because if the languages are not being practiced and used, they disappear. Latgalian language is in such situation, as it's not required to learn at school, but people use it for their daily communication, transferring it to future generations in this way.

In the world and in Latvia globalization continues, in native language the foreign words are a common recurrance and because of it there is a desire to preserve and popularize Latgalian language by creating a metodical ABC book for kids and their parents.

Goal of the research: to explore principles of ABC book development and cognitive perception skills of children, to create an educational ABC book in Latgalian language for kids who are in the preschool age.

Methods of the research: theoretical – analyzing and exploration of the literature and the internet resources, empirical – doing surveys and interviews, analyzing analogs.

Results: illustrated school books are very important in the process of learning a language for children, that would be relevant to the age differences. Research of the scientific papers allows to make a conclusion that ABC book is still the most effective tool to learn how to read for the children of the preschool age, despite of the major importance of technology in our everyday lives. Researchers pay attention to the layout of the ABC books, connection of a picture to a specific letter and useful methods for studying. ABC books are used at homes for learning purposes and in formal educational institutions. The results of the survey show that society is interested in teaching of Latgalian language to kids, using the ABC book. Respondents have formed an opinion that visual presentation of the book is very important, also bright, imaginative pictures. Majority of survey respondents view the book design important to create the overall character of the book.

Kopsavilkums

Lasītprasmes apguves grāmatu grafiskais dizains

Atslēgvārdi: *grafiskais dizains, ābece, lasītprasme, bērnu grāmatu vizuālais noformējums, aptauja*

Mūsdienu tehnoloģiju laikmetā vairs neviens nešaubās par attēla nozīmi informācijas iegūšanas procesā, tomēr sabiedrībā pastāv dažādi viedokļi par grāmatu aktualitāti lasītprasmes apguvei. Rodas jautājums – vai mainoties laikmetam, agrīnai bērnu iepazīstināšanai ar tehnoloģijām, mainās arī prasības grāmatu dizainam, saistībā ar informācijas uztveri.

Mūsu piederību noteiktai tautai un nācijai raksturo valoda, ko bērns piedzimstot apgūst tiešā un netiešā veidā. Valoda ir nozīmīga tautas un valstiskuma saglabāšanā, jo īpaši tik salīdzinoši mazā valstī kā Latvija. Globalizācijas procesu ietekmē mazo tautu valodas kļūst īpaši saudzējamas, jo valodas nekopjot un nelietojot, tās izzūd. Šādā situācijā ir nonākusi arī latgaliešu valoda, kas nav obligāti apgūstama skolā, bet kuru cilvēki lieto ikdienas saziņā, šādi nododot valodu nākamajām paaudzēm

Pasaulē un arī Latvijā turpinās globalizācija, valodā tiek pārņemti arvien vairāk svešvārdu līdz ar to ir vēlme saglabāt un popularizēt latgaliešu valodu, izveidojot metodisku ābeci bērniem un viņu vecākiem.

Pētījuma mērķis: izpētīt ābeces uzbūves principus un bērnu kognitīvās uztveršanas spējas, izstrādāt izzinošu ābeci latgaliešu valodā pirmsskolas vecuma bērniem.

Pētījuma metodes: teorētiskā – literatūras un interneta resursu izpēte un analīze, empīriskā – anketēšana un intervijas, analogu analīze.

Rezultāti: valodas apguvē bērniem ir ļoti nozīmīgs ilustrētu mācību grāmatu pielietojums, kas atbilst vecumposmu īpatnībām. Zinātnisko rakstu izpēte ļauj secināt, ka ābece joprojām ir visefektīvākais līdzeklis lasītprasmes apgūšanai pirmsskolas vecuma posmā, neskatoties uz tehnoloģiju ienākšanu ikdienas dzīvē. Pētnieki uzmanību pievērš ābeces izkārtojumam, attēla saistībai ar konkrēto burtu un izmantojamajām mācību metodēm. Ābeces tiek izmantotas gan mājās izglītojošos nolūkos, gan formālās mācību iestādēs. Anketēšanas rezultāti apliecina sabiedrības interesi par latgaliešu valodas mācīšanu bērniem, izmantojot ābeci. Respondenti uzskata, ka ļoti svarīgs ir grāmatu noformējums, spilgti, iztēli rosinoši attēli. Lielākā daļa aptaujāto respondentu grāmatas dizainu uzskata par svarīgu grāmatas koptēla veidošanā.

Introduction

First element that a child notices in a book is its visual presentation, because kids from an early age have a dominant visual perception. Pictures in children books have many important functions – they are an addition to the text, having an impact on processes of recognizing and memorizing letters and text, while also pictures are stimulating aesthetic sense – explain meaning.

In the world and in Latvia, globalization continues, more foreign words appear in the language, therefore it's necessary to retain and popularize Latgalian language. One of the ways how to do it – is to create a methodical ABC book for kids and their parents.

Research of scientific papers allow to conclude that ABC book is still the most effective tool for literacy for preschool age, despite the increase for importance of technology in our everyday lives. Researches focus their attention on layout of ABC (Harris & Hodge 1981), connection of a picture with a specific letter and useful methods of teaching (Murray & Bruce 1993). ABC books are used at home for educational purposes and also for formal study institutions. Goal for the research is to find out principles of ABC book structure and cognitive perception capabilities of children, collect graphic design rules that need to be complied with in the making of cognitive ABC book in Latgalian language for preschool age children.

To reach the goal, tasks are being set:

- To select, explore and analyse information sources and literature according to topic;
- To do a survey and analyse the results of it;
- To get to know the fundamental principles of cognitive ergonomics;
- To compile conditions of graphic design that must be followed in the making of cognitive ABC book.

The characteristics of ABC book design and literacy

In a research, done in 1993, scientists (Harris & Hodge 1981) define ABC book as picture book in which alphabet letter appear in order, from the first to the last one. In addition to illustrations and consistent model of organization, ABC books usually have united format and they are not extensive, many are focused on specific concept or theme.

Pictures have an important role in ABC books. Illustrations effectively are connected with text by giving a message. Illustrators unite such elements of art, such as line, form, texture, color, text and use different art techniques to create an appealing visual image.

ABC books show the connections between letters and sounds, that they portray (Murray, Stahl, Ivey 1993).

While analysing ABC book principles of organization and their formats, it should be noted that majority of them have consistent and predictable organizational structure, which makes them user friendly. Usually the capacity for getting to know each letter is from one page to not more than two. Page or pages can be made of big letters, small letters or both, with the offered word, illustration and text.

Size of the book, layout of pages, appearance of the cover, fonts, quality of the paper are important. All these elements need to create positive, emotional and aesthetic perception, while providing a child with understanding of the contents of the book. Paper needs to be thick, opaque and durable enough. The perception of the book can't be influenced by reflection of the pages, coating or texture of bad quality paper. Paper needs to provide print visibility. Book cover is the most important visual element and therefore its design and visual influence of the picture raises child's need to read a book or observe it. Binding of the book has to be aesthetically pleasing and ergonomic.

Binding of the book often determines how long it lasts, as specifically ABC book is being opened many times. Also the durability of the opening is important feature of children books, as often they get distracted and change actions, leaving the book open. For children to recognize letters it's important to pay attention to fonts and size of the letters so children could recognize letters, as it influences how easy it will be to read the book. In the layout of the contents of the book the main thing is the harmony between pictures and the text. Visual richness of pages can be regarded as an additional necessary element, in the interaction of a child and a book. Overall, it's important that the contents of the book would encourage attentiveness and sensitivity of children towards life, humanity, nature, therefore broadening horizons and improving language skills in communication.

Despite that ABC book has traditionally been considered a book, that is meant for developing literacy, Sharon Kane quotes Madekss (Maddex 1986) indicates to ABC books that are meant for different age groups and whose content is distinct with different levels of difficulty. In addition, many ABC books are focused on a specific theme or context. Thematic can cover different themes, beginning with architecture and ending with Zoo animals and they often consist of many concepts in general or specific lexicon. In these cases, when speaking about content of ABC book, it exceeds letter identification, letter sound correspondence and identifications of objects that are traditionally connected to them. Text of a thematic ABC book can be written in narration, exposition or poetic form. Unlike ABC books, whose theme development and enrichment is united in alphabetic order, phonology and elements of subordinate concepts, many ABC books depend on first letters as organizational structures correct correspondence. These books can be useful, expanding children's knowledge of vocabulary and knowledge of concepts, as well as significantly influencing the development of their verbal and written language.

While making the design for children ABC books, it's important to follow main printing rules, that apply not only to the material and format of pages of the books, but also in regards to other visually and technically visible properties.

Cognitive ergonomics are related to mental processes: perception, memory, response, because it affects the interaction of a human and an object. There is no common interpretation when it comes to studying the ergonomic parameters of books. Some support the classical ergonomics of books, which are responsible for easy reading of the book, quick perception of information and review of the text, the other interpretation overturns classical values and shows a new perspective on design, book publishing and presentation. Thus, it is difficult to talk about a certain book design, because each author and publisher has their own approach to book development.

Nowadays, when the book market is very large, many want to attract readers with something unusual, especially it goes for the design of children's books, where more and more interactive solutions are offered. This is in line with the Montessori approach, which actualizes the use of different senses, such as sight, touch, sound. This is how neuronal connections are made in the brain. This is especially true of typing skills, which involve hand and finger movement.

The ergonomics parameters and requirements of the pages are evolving along with the book's design and publishing capabilities. One of the first examples of the standard of book ergonomics is the canon design of book pages developed by Van Der Count (Добкин 1985; A. Montessori Introduction to the Alphabet 2019).

An important factor in the design of children's books is the colour of the font, because the text must be clearly visible and contrast with the background of the book, for example, in the classical version - black letters on a white background.

While analysing the ergonomic parameters, it can be concluded that the design of the book must be unique and able to attract the attention of book readers, as well as the text of the book must be easy to read and clearly visible, i.e. the drawing does not interfere with the text. Illustrations must be bright, but also preserving aesthetic principles.

ABC books are designed to show the connection between the letters and the sound they represent. However, because this connection is not obvious, the child needs to identify and segment the phoneme to connect it to the letter. For children, who do not have a phonological understanding, it is difficult to see how to do this, they have difficulty understanding why these letters would be associated with absolutely anything. The connections that children make can be arbitrary and semantic, so they are not reliable.

A word that has been recalled twice may be forgotten when you try to remember it a third time. Links between letter and sound can be made with help of verbal context or images. Thus, a toad whose first letter is "T" can be called a frog, and a rabbit whose first letter is "R" can be called a hare. Phonological understanding begins when a child realizes that the letter "M" is related to the word "mouse". It is necessary to change the view of the "mouse" not only as a specific animal but also as a set of phonemes, focusing on the meaning of the word as it is, its meaning (Piaget & Inhelder 1969). To solve this confusion, a new cognitive structure is needed, which represents the beginning of both – phonological understanding and learning of the alphabetical code.

By reading to children, parents can help the child develop basic knowledge, stimulate their interest in reading and writing, increase the child's comprehension skills and critical thinking (Meller, Richardson, Hatch 2009).

and, in the long run, also promote the child's ability in academic environment. Regularly, every day, by dedicating at least 15 minutes to reading together with your child, forming a dialogue, explaining new, unknown words, the investment is made in child's future.

While speaking and reading in front of a child, his/her brain processes around 10 million pieces of information each year, up to the age of three, allowing neural pathways to develop very differently from children who are not regularly spoken to or read aloud (Gentry 2010). Research results show that while talking to children, they learn the basics of grammar well by the age of two.

Research methodology

A survey was used to obtain empirical research data. The survey was conducted by means of a questionnaire from March 2020. The questionnaire was created electronically on the Google forms platform and placed in the mass media. Appropriately completed 108 questionnaires were received, which were used to summarize the results of the study. In the survey were involved 108 respondents, 84 women and 24 men, aged 17 to 66 years.

The questionnaire consisted of 15 questions, which also included questions on the respondent's gender, age and place of residence. The questions were designed to find out whether it is relevant to teach the Latgalian language to children with the help of the alphabet, as well as which design features of the book are given the most attention. Graphical analysis was used in data processing.

Research results

The survey data shows that daily communication in Latgalian takes place in 24.1% of respondent's families, while in both Latvian and Latgalian – 33.3% of families (see Figure 1).

In turn, 27.8% of respondents communicate with a child in Latgalian on a daily basis. More than half, or 65.7% of the respondents have books in Latgalian at home. 76.9% of respondents consider the possibility to learn Latgalian language with the help of an illustrated ABC book at the pre-school and primary school age, while 11.1% believe that it is not necessary (see Figure 2).

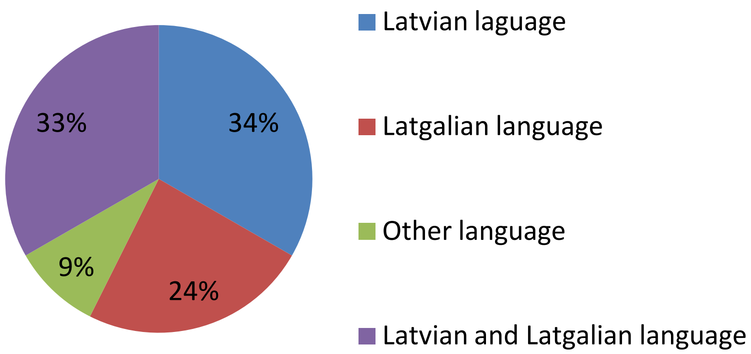

Figure 1. **Answers to the question "In what language is the daily communication in your family?"**

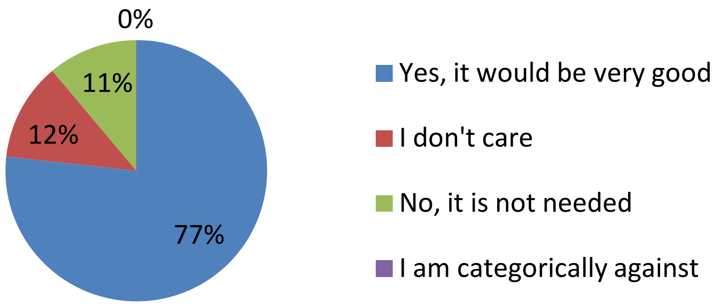

Figure 2. **Answers to the question "How do you assess the possibility to learn Latgalian language at the age of pre-school or primary school with the help of an illustrated ABC book?"**

88.9% of the survey participants noted that the Latgalian language as a historical form of Latvian speech and writing is a sufficiently important part of the culture of our country and it is necessary to try to preserve it and pass it on to future generations.

When choosing a book, design was considered very important by 39.8% of respondents, but important – by 49.1% (see Figure 3).

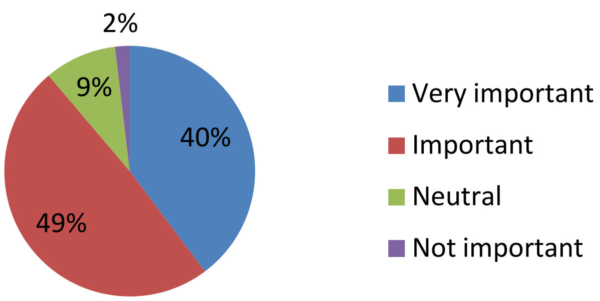

Figure 3. **Answers to the question "How important is the design of the chosen book to you?"**

When describing the design of the book, the respondents pay the most attention to the overall visual image of the book, both to the design of the cover and to the content of the book – 87%, while 9.3% of the respondents pay attention to the design of the book only.

Respondents consider the design of books, bright, imaginative images to be very important. Most respondents consider the design of the book to be important in creating the overall image of the book.

Conclusions

Research of scientific articles leads to the conclusion that the ABC book is still the most effective mean of acquiring reading skills in the preschool age, despite the introduction of technology into everyday life. Researchers pay attention to the alphabet layout, the relationship of the image to the specific letter and the teaching methods used. ABC books are used both at home for educational purposes and in formal educational institution.

The results of the survey confirm the society's interest in teaching the Latgalian language to children using the ABC book. The use of illustrated textbooks, which correspond to the peculiarities of age groups, is very important for children in language learning.

Parents who use Latvian and Latgalian for daily communication are interested in their children learning Latgalian with the help of an illustrated ABC book.

Despite rapid digitization and the everyday use of smart devices, tangible format books are still considered the best way to learn how to read.

The design of the book is important for the formation of its overall image, as well as for the achievement of specific goals, for example, a book that contains tactile elements promotes the development of fine motor skills for the hands. Drawn colorful, bright pictures make the ABC book attractive.

The results of the research will be used to develop a graphic design of the cognitive Latgalian ABC book for preschool children.

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WAYFINDING SIGNAGE DESIGN IN UNIVERSITY CAMPUS TERRITORIES

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Abstract

Wayfinding signage design in university campus territories

Key Words: *graphic design, campus sign system, campus wayfinding signage*

Nowadays, higher education institutions are increasingly being designed and built as sophisticated campuses with several buildings of various uses and functions, covering a wide range of users – visitors, students, academics, administration.

The ability to navigate on site is an important aspect of university campuse functionality, which is most noticable when adequate signage is lacking.Well designed signage system can help regulate user flow, save time, ensure well-being and create and maintain a positive institution identity.

Wayfinding system is a combination of human and environmental interaction that results in efficient movement from the current location to the desired and required information provision. A successful informative sign system consists of well-considered graphic design, application of ergonomic principles, well planned placement, sign herarchy and a unified identity.

The lack of information signage in the university campuses can lead to immediate and permanent confusion. Appropriately selected and placed direction signs helps both first-time and regular campuse users to find needed destinations with out negative emotional experience, delays and disorientation. A well-considered wayfinding signage system ensures that users know where they are located, where is the locateion they need to get to, what is the best route to the chosen destination and the ability to recognize it upon the arrival.

Aim of the study: To investigate the design of wayfinding signage and the key component significance within the university campuse territories.

Methodology: Theoretical: Literature and sources, Internet resources and normative documents research.

Research results: The most important criteria when evaluating the design of wayfinding signage are: coloring, text composition, visibility, scale on site, material application, and ergonomic factors.

Kopsavilkums

Informatīvo zīmju dizains univesitāšu kompleksu teritorijās

Atslēgvārdi: *grafiskais dizains, universitāšu kompleksu zīmju sistēma, universitāšu informatīvās zīmes*

Mūsdienās aizvien biežāk augstākās izglītības iestādes tiek plānotas un veidotas kā plaši kompleksi ar dažādas nozīmes un funkcijas ēkām, kas aptver plaša spektra lietotāju grupu – apmeklētāji, studenti, docētāji, administrācija. Spēja orientēties ir nozīmīgs aspekts univeritāšu kompleksu teritorijās, ko visbiežāk ievēro, kad tā nav. Ar norāžu zīmju palīdzību iespējams nodrošināt lietotāju plūsmas regulēšanu, laika taupīšanu, labsajūtas nodrošināšanu, un pozitīvas iestādes identitātes radīšanu un saglabāšanu.

Informācijas zīmju izvietošanas kopums ir cilvēka un apkārtējās vides faktoru mijiedarbība, kā rezultātā tiek nodrošināta efektīva pārvietošanās no esošās atrašanās vietas uz vēlamo un nepieciešamās informācijas nodošana. Veiksmīga informatīvo zīmju sistēma sastāv no pārdomāta grafiskā dizaina, ergonomikas principu piemērošanas, izvietojuma plānošanas, zīmju herarhijas un vienotas identitātes.

Informatīvo norāžu zīmju trūkums universitāšu kompleksos spēj radīt tūlītēju un patstāvīgu apjukumu. Atbilstoši izvēlētas un izvietotas norādes palīdz kā pirmreizējam tā pastāvīgam kompleksa apmeklētājam atrast nepieciešamo galamērķi, izvairoties no negatīvas emocionālas pieredzes, kavēšanas un dezorientācijas. Pārdomāta informatīvo zīmju sistēma nozīmē zināt, kur es atrodos, kur nepieciešams nokļūt, kāds ir labākais ceļš līdz izvēlētajai vietai un spēja to atpazīt ierašanās brīdī.

Pētījuma mērķis: izpētīt informatīvo zīmju dizainu un tā pamatelementu nozīmīgumu universitāšu kompleksu teritorijās.

Pētījuma metodes: teorētiskās: literatūras un avotu, interneta resursu un normatīvo dokumentu izpēte.

Pētījuma rezultāti: izvērtējot informācijas zīmju dizainu kā svarīgākie kritēriji noteikti: koloristika, teksta kompozīcija, redzamība, mērogs vidē, materiālu atbilstība, erganomiskie faktori.

Introduction

The ability of the university complexes visitors to orient themselves and find the chosen destination is determined by people's individual behavior, features of environmental design and the policy and practice of the particular institution. These components form an wayfinding signage system (Carpman & Grant 2002). The wayfinding signage system is a strategy that provides an opportunity to move around indoors and navigate the environment. It's the answer to the question - where I am; how far is the place where I need to be; and how can I get there. An appropriately designed informative sign system does not make the user think. It is comprehensive and forms a communication between the environment and human being intuitively.

The only information of importance is one that is relevant to the specific environment, location and required navigation. Anything superfluous can create negative conequences by confusing or misleading the user (Guiding Principles: the Crucial… 2019).

When visiting university complexes, the first thing users tend to interact with in the informative sign system are directional signs in the outdoors that allows us to navigate to intended destination. These can include entry instructions, parking lot signs, traffic flow regulations. However, they may be intended not only to direct visitors to their destination, but also inform the user with additional information, such as instructions on the availability of free *wifi*, staff premises or escape routes (Peate 2018).

The orientation strategy provides a comprehensive picture how to navigate in the university complexes. In order to ensure that the information sign system is an integral part of the university complexes, there must be developed a coordinated approach in the overall design strategy, which includes a clear way for any visitor getting to the specific object and orientation in it (Wayfinding & Signage Manual 2016).

The wayfinding sign system mainly addresses two aspects - how to prevent problems that may arise; and how to solve these problems after they arise. Information signs are not just direction signs, but a set of different factors, which together form an environment in which we can move and orient ourselves (Vogels 2012). The informative sign system includes a variety of disciplines, including urban design and planning, product and graphic design, information design, and human behavioral psychology (Spaceagency Guide to Wayfinding 2019). Informative signs allow the visitors in a simple and understandable way to find out where they are and how to get to the desired destination. The wayfinding sign system facilitates the required need to navigate in the surrounding environment.

The aim of the study: To investigate the design of wayfinding signage and the key component significance within the university campuse territories. Methodology: Theoretical: Literature and sources, Internet resources and normative documents research.

The principles of a successful wayfinding signage system

The informative sign system combines the influence of architecture, environment and interior design, lighting, art, symbols, written and digital information. By using these units as a whole, it is possible to establish effective communication between the environment and people (Wayfinding & Signage Manual 2016). Designing an information sign system as a whole makes it easier to identify and understand the problems or seperate aspects of a combination of spaces that need to be solved (Carpman & Grant 2002). The basic principles of a successful informative sign system are comprehensive, clear and consistent visual communication system with a short information exchange rate (Wayfinding 2019).

There are four types of wayfinding signs (Wayfinding 2019):

- Information signs, such as road signs for locating the needed destination and / or orientation in the surrounding environment.
- Directional signs that provide the location of the destination.
- Identification signs that provide information about individual buildings, public spaces.
- Warning signs indicating safety measures, such as fire escape routes, smoking areas and other measures that may or may not be permitted in a particular area.

Whether the informative signage system is designed for a new building or an existing one, there are basic principles how to create a successful system.

Graphic design. The informative sign system is an element of environmental design, which is represented by graphic symbols and images. Whether there are used fun and carefree symbols, or innovative design techniques with signs, an informative sign system is a strategy for solving a problem of finding a destination that can directly affect how people feel and perceive a particular environment (Peate 2018). The design of informative signs is intended to provide practical solutions for user needs, so it is not be seen only as an example of aesthetics or artwork (Symonds 2020). The basis af any correct informative sign system design, just like in any other design related subject, is the attention to the detail, and setting simple rules for those details, for them to form a united design language (Carpman & Grant 2002).

The design of wayfinding signs must be easy to perceive, without language barriers, suitable for representatives of different social groups, including people with special needs, readable from different distances, adequately lit both indoors and outdoors. The design must be appropriate to the context of the environment and it must be consistent with existing signs (Symonds 2020).

The design of the sign system must be able to suit different user groups, regardless of the age, gender or special needs. The height of the information signs should reflect the height of the reader (Wayfinding Design 2020). The informative sign system must be intended for a specific audience, which means that it must be intended for both, first-time visitors and regular visitors that use the university complexes territory on a regular basis. When creating a system, it is important to remember that an individual's psycho-emotional state can be different - it can range from confusion to high levels of stress (VanderKlipp 2006).

To most individuals, modern, unique and artistic-looking informational signs can be difficult to read, thus they can become meaningless, no matter how successful their designs are. The biggest challenge is to create a design that is different but at the same time recognizable. A great example is toilet signs in public institutions. No matter in which country we are located, pictograms indicating which are male or female entrances are universal.

The sign system must be comprehensible regardless of nationality, language or culture (Symonds 2020). Among the many aids in the wayfinding signage system, the symbols are useful for those visitors who have limited ability to understand the written language (Seunghae et al. 2014). Some problems that may arise in the perception of the informative sign system are: the symbols are too small and difficult to see, and you can read it only in direct view; Direction signs are too subtle and elusive.

Color is one of the easiest and most common ways to improve your informative sign system. By choosing the right color combinations, it is possible to create a design that is easier to follow and recognize in the surrounding environment and that creates a positive experience for the users.

Simple design, right color choice, appropriate use of symbols, creates a clear and easy-to-understand reading of information (Symonds 2020).

Ergonomics is a science that studies the process of human activity and environmental interaction. One of the main goals of the ergonomics is to ensure the efficiency, safety and comfort of the operating process (Smart Workspace Ergonomic… 2015). When creating an informative sign system, it is important to follow the basic principles of ergonomics. Information signs must be legible from a certain distance and placed at appropriate points of view. The design and appearance of signs must be easy to perceive and read from a distance, they must be appropriate to the particular environment and stand out from the surrounding background (Carpman & Grant 2002). The field of the human eye view is approximately 180 ° horizontally, but the ability to read text to the center is limited to 10 ° and the ability to perceive symbols to the center up to 60 °.

It is important to apply these distances when planning the placement of informative signs, given that the center of vision at this angle is the area where people see color, shape and text the best (Carpenter 2014). Human vision is not static, so the horizontal field of view rotates with the eye rotation direction. Turning the eyes away from the central position is inconvenient, so people tend to turn their heads and, if necessary, their whole body to capture a wider view (Basic Criteria for… 2020). An important aspect in the design of infomative sign system is the font size (also called font height), which will determine how far the message can be read. Too small or too large font size affects the quality of the informative sign, so it's important to determine which font height will work best at a certain viewing distance (Nelson 2017).

The information must be readable from a greater distance so that visitors can decide beforehand which route to choose to get to the required destination. If the information is only readable in the immediate vicinity, this leads to congestion. For this reason, for example, at the airports or railway stations, informative signs are placed higher and with a larger size than informative signs placed in an environment where there is no large flow of people or large spaces (Al Rayyan FIFA Stadium... 2019).

Location. In order to avoid misunderstandings and disorientation in outdoors, it is important to clearly identify the main buildings and their entrances, to place vehicle and pedestrian traffic information signs at strategic decision-making intersections (Carpman & Grant 2002).

The decision points are located where visitors have to decide whether to continue or to change direction. Informative signs at decision-making points help to provide more detailed information on possible directions and destinations to be reached. Signs must have an authoritative and with unambiguous content of the information provided (The 7 Principals... 2020).

Wayfinding signage systems are widely used in buildings to provide information on destinations and their possible routes, thus helping to coordinate the flow of pedestrians, which is particularly important in emergency situations. An important consideration that determines the effectiveness of information signs is their placement in the visitors' field of vision (Xie et al. 2007).

It is important that the format of the informative sign is appropriate to its location, layout and the information it provides. When choosing the distance from which the sign will be visible, you need to adjust the text size. For example, for a pedestrian from a distance of 5 m, the minimum recommended text size is 13 mm but for a motorcyclist when it is moving in the city and is 20-50 m from the sign, the recommended minimum the text size is 75 mm (Type Sizes & Viewing Distances 2019).

Identity. For the visitors it is easier to navigate using visual information. Each site must have its own identifying feature that distinguishes it from other sites. Using different design techniques, such as color schemes, unique textures, texts, or styles, it is possible to create different features for a specific place.

For example, in a parking lot, each aisle is almost identical, which can cause confusion. By using parking numbering and giving each number a unique color, it is possible to create a different feature that makes it easier for visitors to remember and find the location of their car (The 7 Principals... 2020). When the provided information is predictable, interrelated, the user can rely on the system to provide the information they expect from it. In unfamiliar environments predictability helps the user to navigate faster. For example, the location of the informative sign before the intersection of two objects (Wayfinding Design 2020).

In order to better ensure orientation and finding a destination in a large complex areas, the area should be divided into smaller mapping regions. Each area has a set of visual elements that identify it and that is different from the others. Not only does it provide an informative feature, but it also helps you move from one area to another. One of the ways you can use to identify a set of elements is to use different colors and letters (The 7 principals... 2020). Indoors, it is necessary to make the main destinations, exits, elevator and stair locations unique and easily recognizable from a distance, and with the help of design elements separate staff premises from publicly accessible premises (Carpman & Grant 2002).

Hierarchy. The information must be organized and hierarchically structured. It is not always possible to find the chosen destination at the first time, so it is important to give directions without overloading with too much information as to where the visitor is and where to get from there (VanderKlipp 2006).

In order to create an effective wayfinding sign system, it should be presented clearly and logically. It is important to balance the amount of the provided information – too much information, it is not easy to perceive it, but if there is too little information, it does not allow to make a choice (Wayfinding Design 2020).

Wayfinding signage design actuality in university complexes territories

In order to develop a design project for an wayfinding signage system for the territory of Rēzekne Academy of Technology (RTA), a theoretical study has been carried out to identify the current situation and trends in informative sign design in university complex territories, paying special attention to the foudational design elements, their development and significance.

For the development of a successful wayfinding signage system the basic principles discussed above can be used as analogue, as well as an evaluation criteria for the developed RTA design project. Those are graphic design, visibility, environmental scale, material compatibility and ergonomic factors.

An informative sign system in university complex areas is an integral part of the environment in order to create a positive impression on potential visitors and students by helping them to find the desired destination within the campus, which is especially important during the first visit. By recognizing the importance of first impressions, many universities understand the value of an integrated and well-designed environmental graphic system. Whether visitors arrive on foot or by car, an informative sign system is essential to direct their way around the surrounding environment. Because of it, the informative sign system is the first and most important signal of hospitality. University complexes with their environmental scales are a complex environment that can excite and confuse visitors (Coss 2007).

By looking at the university complex wayfinding signage design project, it can be concluded that the development of the informative sign strategy is highly topical, and is an important part of the university environment. The informative sign system has to be developed to create a comprehensive, intuitive road detection system in university complexes territories for graduates, first-time visitors, staff, current and new students. The informative sign system includes the development of the informative sign hierarchy and the design and content of the sign elements, which would be able to ensure the effective movement of users to the desired destination.

The main tasks are to organize successful movement of visitors and users in the university complex areas to the desired destination, to improve the safety of the complex users by creating a sustainable design aimed at providing accurate information and clearly legible signs.

The wayfinding sign system is developed as a comprehensive system, including directional signs, building identification signs, information signs and warning signs with a unified design, ergonomic parameters, color variations that reflect the university's identity, planned locations and the provision of certain information.

Conclusions

- An efficient road detection system provides answers and ensures smooth regulation of pedestrian flow. Controlling the movement of visitors within the university complex territories or its buildings can reduce the confusion caused by the environmental configuration.
- A good sign system reduces the amount of time, attention and energy what it takes to find your way to a particular destination or to help others find it. It is a dynamic system that needs to adapt to the students, staff, faculty and other members of society and visitors needs.
- The absence of informative signs or the inadequate structure of the system leads to disorientation, frustration and anger, which can damage the overall image of the institution. Providing information to visitors and university users to find a specific destination is an important aspect of building the overall image of the institution.
- A well-designed informative sign system not only helps to orientate, but encourages people to explore and understand the surrounding environment.
- The basic principles of the wayfinding signage system which can also be used a the primary evaluation criteria when analyzing university complexes territories, are: design, ergonomics, location, hierarchy and identity.

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