

The Aesthetic Quality of Landscape Composition in the Multi-storey Residential Areas

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Abstract. The aesthetic quality of landscape composition in the urban multi-storey residential areas built in the second part of the 20th century has increasingly become important. These regions present multiple landscape composition problems. The state of the aesthetical quality is determined by several important factors that, when interacting, give detailed information and create a visual image of the inner space in courtyards. The current state has been determined and explored, having chosen the multi-storey residential areas of Jelgava city as a research object.

Keywords: aesthetic quality, landscape composition.

INTRODUCTION

The overall changes in Latvia and other European countries have greatly affected the issues of multi-storey residential areas. There is a great amount of transformation and over-exploitations of multiple vast territories, in order to create new multi-storey residential areas, as well as the gradual degradation process of buildings created in the second part of the 20th century. One of the most important indicators of these regions is the aesthetic quality that determines and facilitates the further development process. Consequently, the topical theme requires obtaining of the information, as well as finding answers to multiple questions regarding the aesthetic quality state of the landscape composition in the multi-storey residential areas. The present research reflects the analysis on the aesthetic quality of landscape in courtyards, which is one of the most important aspects in planning spatial environment in the large-scale residential areas. A specific example can be found in courtyards of Jelgava city residential areas. The main methods for analysing the aesthetic quality are the application of static data processing and the study of the informational basis. The results obtained allow summarizing the comprehensive information regarding the present situation in residential communities of Jelgava and the necessity to find a solution for problems discussed from the aesthetical point of view. The aim of this research is to determine how the aesthetic quality state of courtyards in the multi-storey residential areas affects the inhabitants of the territories analyzed.

MATERIALS AND METHODS

The problems related to the presence of art in the architectonic environment planning became very topical in the 70s. The reasons for that could be found, on the one hand, in the gradually increasing amount of building projects that create a real living environment not only for our generation, but also for the next one; and, on the other hand, in the

understanding that the quality of this spatial environment cannot satisfy the growing needs of the society [1]. Residential areas built in the Soviet Union are too large, typized and impersonal, their technological and construction quality is low. Possible varieties for completion, reorganization and improvement of these areas might change the structure of the city [3].

There are multiple development problems in the multi-storey residential areas of Jelgava that create and determine the aesthetic quality level of these areas. The aesthetic quality comprises several factors that, in general, determine the level of landscape composition development and structuring for every inhabitant of this area. The great uniformity and wear of these territories requires further solutions. "Determining the affect of the environment on a human being, it is necessary to consider that a full development of a person cannot be achieved with a passive perception of only one or another stimulus. Each stimulus becomes an essential personality developing factor only in case, if an organism is given a chance to react to this stimulus actively and productively...". The idea proposed by the famous American scientist Reni Dibo perfectly characterizes the attitude of the modern society towards a uniform environment, despite its absolute accordance with industrial methods and standards [1]. Public spaces of living environments are an "essential part" of housing - it is an expansion of individual living environment in the outside territory. It is an environment where, through everyday routine, individuals expand the perception of their homes from an apartment to broader public spaces. Inhabitants actively exploit these territories, thus, privatizing the physical space that they consider to be their own [10]. Consequently, an important issue is the opinions of residents of these analysed territories as regards the outdoor area, its aesthetic quality and further development. For more effective analysis of the case, a hundred respondents, who live in the large-scale residential areas of Jelgava, were chosen for an interview. Respondents were people aged 20 to 65. A direct contact with residents of the territory is considered as one of the key factors that allow better understanding the attitude towards the present situation in these multi-storey residential area courtyards. To determine the current state of the aesthetic quality, the respondents shared their opinions on questions regarding problems of landscape composition that, in their opinion, are of great importance in these courtyards. The questions prepared cover two basic themes: the first theme aims at finding how the resident perceives the environment of the courtyard, and the second theme covers the equipment of the functional zones, layout and location, functionality and

quality. All the data obtained from the residents were also supplemented by the opinion of ten experts, of whom five were experts from Latvia and the other half were foreigners (from Estonia, Sweden and St.Petersburg). The ten experts chosen by the author are professionals who in their everyday work come across the specifics of urban planning, landscape planning and constructing. The questions prepared helped studying the current processes in the large scale residential area courtyards from the experts' point of view, which are notable aspects to consider in the process of further solution researching.

Having observed the rapid development and expansion of territories, it is necessary to critically evaluate their effort, as well as mistakes, that can be observed in the construction of spatial environment, determining and analysing the current state of the situation, as well as raising the most uncertain questions that would lead to a certain answer through employing the appropriate methods. An important issue, regarding the neglected courtyards, is their reconstruction by employing the appropriate spatial environment planning principles that would provide good outside space exploitation possibilities for every inhabitant of the territory under analysis and that would affect the aesthetic quality level.

RESULTS AND DISCUSSION

The environment quality is to be improved in almost all of the areas considered. Nevertheless, each area will have different improvement plans, depending on such factors, as the year of their creation, types of buildings, the level of spatial planning, etc. Approximately 80% of the residential fund in Jelgava was built after the World War II, in the Soviet period [3]. It is practically impossible to stop the technical progress and, actually, it is not necessary. But it is necessary to find the ways how to improve, enrich and flexibly diversify the architecture which determines the face of the city in the whole world [1]. The same can be related to the landscape composition in courtyards, its functionality and aesthetic quality. There is the closest connection between the character of the built area and its inhabitants' lifestyle, because it is the environment that greatly defines the flow of their everyday life [10]. The degradation processes of the wide-scale residential areas have been caused by several factors. The main factors are the effect of their physical design and location in the city, as well as the housing market and the creation of a negative image [8]. The multi-storey residential areas of Jelgava are one of such residential area types where inhabitants actively exploit the environment, but are not interested in recreation, restructuring and rational exploitation of this territory (Figures 1, 2). Inhabitants are used to this state of environment and are not concerned about improvement of the aesthetic quality of these courtyards. This attitude of the inhabitants should be changed in order to stop the degradation process of the area.



Fig. 1. Present state of the RAF community in Jelgava city (Photo by Una Īle, 2009)



Fig. 2. Parking lot in the RAF community (Photo by Una Īle, 2009)

Psychological aspects of degradation in the large-scale residential areas: inhabitants' concerns about the future of the area, the lack of the group decision making and common activities, the desire to move away from the area, moving to other living areas, the arrival of new, significantly poorer inhabitants, the inability to sustain the high quality of the area – the concerns are proved to be relevant, as the area is degrading [8]. The modern housing fund has become much neglected, and this has caused several irreversible negative development factors for the successful improvement, re-planning, and development of the multi-storey residential areas. The territories of courtyards are not rationally exploited, and the functional zones are mixed and misused (Figures 3, 4). Green zones of the courtyards are constructed without well considered projects, where the denseness and disposition of trees significantly obstruct the operation of fire extinguishers, and have lead to an over-shading of the territory. The destruction, degradation and pollution of landscape elements lead to impairment of observational and perceptual skills, as well as causes stress. This affects the adaptation abilities and health of the society [1]. All the problems considered require a

solution that would help solving these important issues. A well-organized residential territory serves an educational purpose. By playing in courtyards, children obtain their first impressions about the outside world. It is often said that at first, a man makes home, and then the home makes the man. The same can be related to the landscape and the greenery of the residential territory [12].



Fig. 3. Present state of a courtyard in Jelgava (Photo by Una Īle, 2009).



Fig. 4. Disorganized functional zones of a courtyard in Jelgava (Photo by Una Īle, 2009)

The Council of Jelgava finds that it is necessary to gather and involve inhabitants, their communities and cooperatives in the process of improving the quality of the residential areas. The residential building planning and constructions need to provide the transportation and transmigration possibilities for physically challenged people [3]. For spatial organization, as well as for creating open areas, city ensembles, streets and squares, and interior, it is necessary to observe several factors: the absolute measures of space creating elements, the mutual measure relations of proportions and elements [7]. The territory surrounding the residential areas, are to be used according to their exploitations characteristics and aesthetic requirements of inhabitants [11]. The perception of the outside

space comprises the given information about the current environments in the spatially united interconnection. Here it is necessary to consider the problems of proportion and scale in the courtyards of the multi-storey residential areas considered. The information in the outside area is given by the fronts of buildings, their colour and division with architectural forms. In case of mass building, serious problems are often caused by the infinite repetition of informatively congeneric rectangular-shaped elements [12].

In addition to the already mentioned problems, a significant contribution for the research were the data obtained in sociological surveys on the opinions and thoughts of the large-scale residential area courtyard residents. The results obtained clearly represent the actual issues that are to be taken into consideration in the further courtyard development process. The first question theme covered those issues that reflect the residents' concerns about their residential courtyards. Several modern tendencies were observed in these opinions regarding how organised, accessible, overlookable, wide, tidy and safe for children the courtyards are (Table 1).

TABLE 1
RESIDENTS' OPINIONS ABOUT THE LIVING ENVIRONMENT IN THEIR COURTYARDS

Positive features/ characteristics	Strongly agree	Rather agree	Average	Rather disagree	Strongly disagree	Negative features/ characteristics
organised	18%	24%	27%	27%	4%	unorganised
overlookable	15%	26%	45%	6%	8%	non-overlookable
easily accessible	16%	12%	45%	10%	17%	difficult access
wide	22%	20%	33%	20%	5%	small
in good condition	12%	14%	38%	13%	23%	degraded
tidy	23%	14%	31%	14%	18%	untidy
safe for children	14%	8%	47%	8%	23%	unsafe for children
attractive	12%	7%	50%	11%	20%	unattractive
quiet environment	16%	18%	30%	14%	22%	loud environment
lee	14%	14%	29%	14%	29%	draught
insolated	22%	21%	27%	16%	14%	shaded
interesting	14%	11%	35%	7%	33%	boring

Source: made by Author

Most respondents' opinions on the residential environment in courtyards were characterised as average. It means that respondents find the state of their residential area courtyards to be average, almost tolerable, and only a few of them were rated higher. The level of the residents' satisfaction with the general state of their outdoors is rather low, and it potentially overcomes the indicators of other results with an average rating. These indicators are significant in maintaining the

outdoor quality. If the present results are negative, then what will happen with these territories in the future? Will there be any improvement of the environment development in the future?

The questions from the second group were formed so as to find out the opinions of residents as regards the equipment of functional zones, their location and disposition, functionality and quality. Only 2% of the respondents find their territory to be tidy and organised, 66% agree that there are unaesthetic and low quality elements of environment in the residential area, and 32% find the courtyard territory to be neglected and degraded. 54% of the respondents are convinced that the residential area is worn-out and needs improvement, and only 4% of residents find their residence to be safe and with organised infrastructure. 78% characterise the territory as poorly planned, non-functional and unfit for a children playground. There are draughts and the area is heavy-duty, which is caused by inhabitants of the nearby residential areas (Figure 5). 12% of the respondents agree that they have not considered and paid attention to these problems in their residential area courtyards. One of the most essential issues among the inhabitants concerns the population density, because 60% of the respondents emphasize that the population is at its optimum rate and there is no need to build new residential areas in the neighbourhood, and 28% find that a great part of the inhabitants cannot support the heavy-duty of the territory, where 26.9% would like the parking lots to be restructured, providing an organised and safe infrastructure in courtyards, especially considering the safety of pedestrians on the streets (Table 2).



Fig. 5. Playground in the large-scale residential area in Jelgava (Photo by Una Īle, 2009)

TABLE 2

RESIDENTS' THOUGHTS ON THE PRESENT STATE OF FOOTPATHS AND LIGHTING

Residents' analysed aspects in the large-scale residential courtyards	Fully satisfactory	Rather satisfactory	Satisfactory	Rather dissatisfactory	Fully dissatisfactory
Planning direction for footpaths	7%	29%	14%	32%	18%
Quality of footpaths	0%	14%	11%	32%	43%
Quarter street lanterns	11%	46%	14%	18%	11%
Courtyard lighting systems	7%	29%	14%	21%	29%

Source: made by Author

Measures that provide an improvement of sanitary-hygienic conditions in old residential quarters are to be fulfilled in a set order [6]. Consequently, it is obvious that courtyards built in the Soviet Union in the modern world appear outworn and have not experienced any environmental development in the last years. The residents wish and find it being necessary to build more courtyard territories with decorative bushes, trees, perennial beds that would make the territory more attractive and pleasant for every inhabitant (Figures 6, 7).



Fig. 6. Residential area in Sweden, Stockholm. Source: <http://www.hammarbysjostad.se/glashuset/>.



Fig. 7. Residential area in Finland, Tapiola. Source: <http://maps.google.com/>.

Every person's taste and environment perception is different. One finds colourful elements to be attractive, but they overwhelm the others. It is impossible for a multi-storey building to fulfill each resident's wish to plant a desired tree near his window. Planting has to be coordinated with the construction standards; trees have to be located in a distance of at least 2-3m from electric communications, and a tree cannot be planted at least 5m from a building [2]. The territory surrounding residential buildings is to be constructed according to the type of exploitation and aesthetic requirements. Each little work in the greening process is a part of a larger work, which is of great importance in the city planning; therefore, residents are not allowed to plant trees or other plants as they desire. The greenery has to be carefully planned and constructed in accordance with the project, and

consulting with specialists. It is important to provide hygienic conditions, the appropriate equipment and a correct disposition of greenery in the territory, according to the type of exploitation. The aesthetic value of the greenery does not depend on how diverse the planting material is, how wide the planting bed territory is, or the number of planted trees. It is determined by the location and division of the plantings, and their arrangement according to the principles of art and architectural compositions [11]. The planning of green territories and the spatial composition is to be constructed by observing the importance and size of the object, the attendance magnitude in certain territories, the existing planning and the greenery disposition relief, soil and climate conditions, as well as the decorative quality of plants [5]. Observing all these aspects will ensure that inhabitants are satisfied with the outdoor territory exploitation possibilities (Figures 8–10). Inhabitants' wishes regarding the diversity of equipment in courtyards are varied (Table 3).

TABLE 3

EVALUATION OF INHABITANT SATISFACTION LEVEL

Residents' analysed aspects in the large-scale residential courtyards	Yes	No	Necessary	Unnecessary
Children playground equipment for different age groups	0%	43%	50%	7%
Benches with litter boxes	3%	29%	64%	4%
Outdoor sports equipment for adults	0%	50%	43%	7%
Sandbox	32%	32%	25%	11%
Car parking lots	50%	29%	18%	3%
Underground parking lots	0%	64%	18%	18%
Multi-storey parking lot	0%	64%	11%	25%
Short-term parking lots	39%	36%	21%	4%
Open-air bicycle parking space	0%	71%	29%	0%
Sheltered bicycle parking space	0%	50%	46%	4%
Space for garbage bins	86%	11%	3%	0%
Demarcated garbage bins	29%	39%	32%	0%
Areas for laundry drying	25%	32%	7%	36%
Sloping (ramps)	11%	64%	25%	0%
Lowered border stones for footpaths	18%	57%	25%	0%
Chair lift (platform) for people with physical disabilities	0%	75%	25%	0%
Decorative bush plants	57%	18%	25%	0%
Grown trees	82%	11%	7%	0%
Perennial beds	25%	57%	14%	4%

Source: made by Author

The information provided by experts suggests thinking about the functional zones of courtyards and the spatial planning. Experts emphasize that they often come across non-functional spatial planning that cause irreversible negative consequences in the courtyard development process.

Most experts find it necessary to re-plan and reorganize the aesthetically unattractive degraded territories. They have also

expressed their opinion concerning inconsistencies in the legislation and the financial aspect that greatly affect the aesthetic quality of these territories (Figures 11–12).



Fig. 8. Example of greenery in a courtyard in Riga (Photo by Una Īle, 2010)



Fig. 9. Successfully landscaped territory with outdoor sports equipment in Ventspils (Photo by Una Īle, 2010)



Fig. 10. Outdoor sports equipment in Ventspils (Photo by Una Īle, 2010).

The main task for the further development of residential environment is creation of multi-functional and intensively exploited urban environment, as well as maintain the identity of the place, its fulfilment and harmonization of the environment scale. Looking from the broader perspective of sustainable urban environment, the priority should be placed on the renovation and modernization of the existing densely populated areas, their humanization and insuring of the availability of public transport. Such actions might reinsure inhabitants not to leave their residences and not to allow the city to expand [9]. The group of Latvian experts in their everyday work often comes across the non-functional exploitation of territories in residential areas, whereas, the opinion of experts from Sweden, Estonia and St.Petersburg is exactly the opposite. 66.7% affirm that in their work experience they have never come across such problems. 40% of Latvian experts agree that in the large-scale residential area courtyards there is multiple unsuitable, non-functional spatial planning that causes irreversible negative consequences in their further development and only 16.7% of foreign experts agree to this statement. 33.3% of foreign experts find that large-scale residential areas present multiple other problems. In general, the foreign experts emphasize that it is necessary to inform and listen to the needs and wishes of inhabitants in order to be able to successfully improve and develop the residential environment.

The problem is in the fact that not always the values that are important to people can be realised in their lifestyle, because they are prevented by external factors which not always can be affected [4]. Looking at the present situation in the large-scale residential area courtyards from the aesthetic quality aspect, it is obvious that the image of the territory environment is monotonous and outworn. Here the experts' opinions can be taken into consideration in order to help facilitating the improvement of the present situation in these courtyards (Table 4).

TABLE 4

EXPERT GROUP'S EVALUATION OF FURTHER DEVELOPMENT IN THE LARGE-SCALE RESIDENTIAL AREAS

Expert opinions regarding further development process in large-scale residential courtyards	Latvian experts	Foreign experts
Inhabitants' opinions regarding improvement of living environment should be taken into consideration	10%	30%
The aesthetically unattractive and degraded territories are to be re-planned and re-organised	70%	40%
New ideas and propositions should be introduced	10%	10%
The development is not necessary, in my opinion, everything corresponds to the norms and the needs of the inhabitants	0%	20%
The situation will not change in the next five years	53.8%	36.4%
The development and planning of new large-scale residential areas will remain the same	7.7%	27.3%
Neglected multi-storey residential areas will be renovated	15.4%	9.1%
Foresee rapid constructions of multi-storey residential areas	0%	27.3%

Source: made by Author

The improvement of aesthetic quality in large-scale residential areas is to be facilitated in all territories of Jelgava city, as well as in other cities of Latvia.



Fig. 11. Rationally landscaped courtyard territory in Stockholm (Photo by Una Īle, 2010).



Fig. 12. Functionally organised territory in Stockholm (Photo by Una Īle, 2010).

CONCLUSIONS

Large-scale residential areas of Jelgava need to be gradually organised; this would improve the aesthetic quality of the territory. The major part of the territories does not measure up to modern multi-functional requirements and norms; the aesthetic quality of these territories is very low. The appropriate high-standard large-scale residential areas and their attractive surroundings are one of the key factors in providing well-being of the environment for its inhabitants. The negative factors observed represent the residential area as unattractive, degraded, and depressing. It is necessary to reconstruct and improve the green zones, to create relaxation and recreation space for inhabitants of any age group. It is also important to arrange the infrastructure of courtyards, in order to provide a safe and comfortable transmigration for every

inhabitant of the territory. This would make the multi-storey residential area more aesthetically attractive, and consequently will ensure the wellbeing and relaxation for the inhabitants. The aesthetic quality of the landscape composition is of great importance in the multi-storey residential areas, because every previously enlisted and analysed aspect and element of environment makes a specific spatial environment. Consequently, the issues regarding the aesthetic quality of the residential area have revealed a group of problems that are found in the territories under study. The wishes of inhabitants are varied, but very specific, because the questions set earlier specified the environment quality issues. In the further development of the courtyards, it is necessary to employ its inhabitants, who, together with experts, would come to optimal solutions for the territory. The conclusion is as follows: further researches on the state of the multi-storey residential area courtyards, their development and other affecting factors and aspects that were not included in this research are required.

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Una Īle. Ainavtelpiskās kompozīcijas estētiskā kvalitāte lielmēroga dzīvojamajos rajonos

Rakstā analizēti lielmēroga dzīvojamo rajonu iekšpagalmi no ainavtelpiskās kompozīcijas estētiskās kvalitātes aspekta puses. Publikācijā uzsvērts, ka ainavtelpiskās kompozīcijas estētiskās kvalitātes stāvoklis ir viens no svarīgākajiem šo rajonu rādītājiem, kas nosaka labvēlīgus ārtelpas dzīvojamās apstākļus un turpmāko procesu attīstības gaitu. Rakstā izvirzītais mērķis ir noteikt, kā lielmēroga dzīvojamo rajonu iekšpagalmu estētiskās kvalitātes stāvoklis iespaido šo teritoriju iedzīvotājus. Par piemēru aplūkoti un analizēti, no estētiskās kvalitātes viedokļa, Jelgavas pilsētas mikrorajona teritorijas iekšpagalmi. Precīzas informācijas iegūšanai pielietota statisko datu apstrāde, kur tika izanalizētas trīs respondentu grupas. Respondentu grupas veidoja šo analizēto teritoriju vietējie iedzīvotāji, latviešu un ārzemju ainavu arhitektūras virziena eksperti. Apkopojot informatīvās bāzes materiālus un iegūtos rezultātus, no visām trijām respondentu grupām, iegūti konkrēti un visaptveroši secinājumi par šīm analizētajām teritorijām. Analizētā teritorija neatbilst mūsdienu daudzfunkcionālajām prasībām, Jelgavas pilsētas mikrorajona iekšpagalmi ir degradēti un nolietoti. Lielmēroga dzīvojamo rajonu iekšpagalmu estētiskās kvalitātes stāvoklis ir visai zems, tas nespēj nodrošināt ikdienas izmantošanai labvēlīgus un patīkamus apstākļus. Nepieciešams izstrādāt viedri draudzīgus risinājumus un racionālus priekšlikumus, kas celtu estētisko kvalitāti analizētajos iekšpagalmos un veicinātu turpmāku šo degradēto teritoriju attīstību.

Уна Иле. Эстетическое качество композиции ландшафтного пространства в больших жилых районах

В статье анализируется аспект эстетического качества композиции ландшафтного пространства внутренних дворов больших жилых районов. В публикации подчеркивается, что состояние эстетического качества ландшафтного пространства этих районов - один из важнейших показателей, который определяет благоприятные жизненные условия внешнего пространства и дальнейший ход процессов развития. Выдвинутая цель статьи является определение, как состояние эстетического качества внутренних дворов больших жилых районов влияет на жителей этих территорий. Как пример, рассмотрены и проанализированы, с точки зрения эстетического качества, внутренние дворы территорий микрорайона города Елгавы. Для получения точной информации применена обработка статистических данных, при которой были проанализированы три группы респондентов. Группы респондентов состояли из местных жителей анализируемых территорий, латвийских и зарубежных экспертов в области ландшафтной архитектуры. Обобщая материалы информационной базы и результаты, полученные от всех трёх групп респондентов, сделаны конкретные и всеобъемлющие выводы об анализируемых территориях. Проанализированная территория не соответствует многофункциональным современным требованиям, внутренние дворы микрорайона города Елгавы деградированы и изношены. Состояние эстетического качества внутренних дворов больших жилых районов крайне низкое, оно не способно обеспечить благоприятные условия для ежедневного пользования. Необходимо разработать дружественные решения для экологии окружающей среды и рациональные предложения по повышению эстетического качества анализируемых внутренних дворов и способствующие дальнейшему развитию этих деградированных территорий.

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