THE INFLUENCE OF ACTIVE LEISURE AREAS ON THE VISUAL QUALITY OF THE URBAN ENVIRONMENT

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Abstract
In planning active leisure areas, the main emphasis is placed on the elements used in the infrastructure of children's playgrounds and recreational sports areas, their functionality, and compliance with various safety requirements in the public outdoor space. However, there are no uniform requirements for the aesthetics of the elements or the visually coherent inclusion of such infrastructure in the surrounding environment and existing infrastructure. The study aims to evaluate the impact of the infrastructure of active leisure areas on the visual quality of the public outdoor space and possible improvements by choosing alternative elements with a different visual design but similar functionality and to distinguish the main characteristic features for determining the visual quality of elements and characterize the impact on the surrounding environment. The research uses the descriptive or monographic method to collect and analyse the elements and functionality included in the surveyed territories in the summer and autumn of 2022, evaluating the aesthetic quality of the elements in active leisure areas in the public outdoor space of Riga and Tallinn. The study's main results reflected several problems related to integrating active recreation areas into the surrounding environment. They highlighted issues related to the quality of the existing environment, which can be described as insufficient or low and which characterizes the planned development as coming into conflict with the existing environment's aesthetic qualities or their absence.
Key words: active leisure areas, recreational sports areas, visual quality.

Introduction

Active leisure areas in the urban environment provide a functional diversity of activities, which is related to the promotion of the active lifestyle of the population to improve the overall quality of life (State of Victoria, Department of Health and Human Services, 2018; Ayala-Azcárragaa, Diazb, & Zambranoa, 2019; Hillsdon *et. al.*, 2006; Kalniņa & Stokmane, 2022; Janpavle & Īle 2022). A multidimensional approach to urban planning interlinks architecture's visual-spatial dimensions with green structures and the infrastructure necessary to ensure activities create a modern and high-quality urban environment (Īle, 2022; Kalniņa, & Stokmane, 2022). Therefore, integrating active leisure areas in the urban environment is closely related to contemporary trends in architecture and environmental design directions to create a modern and harmonious urban environment at all levels. When planning activity areas, the impact of the infrastructure required for the provision of activities and the elements to be included in improving the visual aesthetic quality of the surrounding area is not always considered, affecting the overall quality of the city on a larger scale.

A high-quality environment for outdoor play is widely discussed, which would be related to the availability of natural objects and structures, the inclusion of natural elements, various materials and shapes, and terrain in the infrastructure of playgrounds (Loebach & Cox, 2022; Talarowski *et al*., 2019). The need for a high-quality and organized environment is determined, which is related to children's further development and impressions, as well as the environment quality they see around them, which can affect further experience and critical thinking about the perception of qualitative living space in adulthood (Zerlina & Sulaiman, 2020; Loebach & Cox, 2022). What can apply to the opinion of the specialists involved in the planning of active leisure areas and the customer or developer regarding decisions related to urban design solutions and elements that should be included, their interaction with the surrounding environment, guided by the experience, knowledge, and subjective vision. There are no directly defined visual aesthetic characteristics of the public outdoor space concerning active recreation areas, which should ensure that such improvement generally fits into the surrounding environment. There are more discussions about how a high-quality and natural environment for play can improve the quality of the user experience (Loebach & Cox, 2022; Talarowski *et al*., 2019), but the components or structures to be included in the improvement are not explicitly listed, which would fully ensure the necessary functionality and how it would be included in the surrounding environment.

The components characterizing the urban environment for visual aesthetic quality are defined in separate studies for parks that include active leisure areas as an essential component of parks and cities that provide accessible activities for all. Components that are associated with aesthetics are more applicable to flora and fauna, water features, art objects, landmarks, sports, and recreation infrastructure - team sports playing fields or cafes, while recreational sports areas and children playgrounds are defined as recreation infrastructure (Zhang *et al*., 2022).

This partially explains the insufficient emphasis that has been placed on the visual aesthetic quality of active leisure areas, as they are primarily designed to provide the necessary functionality but are not evaluated as part of the overall improvement as a visual aesthetic component that complements or highlights the overall image of the surrounding environment. A study on innovative children playgrounds (Talarowski *et al*., 2019) highlights the components that should be included in them - different surface covering materials, natural areas for play with plants, undefined elements that do not directly define the functions of play, moving or movable elements, various

non-traditional play elements, inclusive design for all age groups, but it is not mentioned how such elements should look visually or fit into the surrounding environment with the main emphasis on natural elements and materials. Similar to the elements included in recreational sports areas, the main emphasis is placed on their functionality. Still, regarding visual quality, the user experience, visual perceptibility of the element, and resistance to vandalism are mentioned (State of Victoria, Department of Health and Human Services, 2018), which is not in the context of visual aesthetic quality and inclusion.

Although active leisure areas are primarily evaluated by providing activities and elements that ensure functionality, the environment in which activity areas are planned, their accessibility, and their design are highlighted in individual urban guidelines. The public outdoor space must be designed not only functionally but also aesthetically attractive, both from the point of view of architectural quality and the interaction between the design quality of the public outdoor space and the natural environment. However, landscaping design can help define user groups, used materials and designs must be durable, robust, and adapted to the specific place, which is the responsibility of the client, developer, and designer (The Ministry of Local Government and Modernisation, 2019). The Prague public outdoor space design guidelines (Prague Institute of Planning and Development, 2020) highlight the importance of the nature of the surrounding environment in which active recreation areas are integrated. In the built environment, the active recreation areas should be more compact, using elements that provide activities of classic design. In contrast, in parks, open green spaces, and territories with minimal construction, a dominant natural environment should be integrated with more natural elements and materials, including the natural structures available in the surrounding environment.

Materials and Methods

The study evaluates the visual aesthetic quality of the urban environment in the public outdoor space as one of the factors affecting the overall quality of the city, paying attention to the design solutions applied to active leisure areas, their aesthetics, and their interaction with the surrounding infrastructure.

The research examines examples of active leisure area design solutions for mutual interaction with the environment in which they are located. For more in-depth research, this study evaluates active leisure areas in Latvia, Riga, and similar areas in Estonia and Tallinn.

The active leisure areas selected in this study are based on principles included in the previous study (Janpavle & Īle, 2022) and include the proposed principles in the selecting territories and previously defined evaluation criteria, further continuing the study to evaluate the quality of public outdoor space in the context of active leisure areas. The study additionally determined the components attributable to the interaction of active leisure areas with the elements in the surrounding environment and existing urban design structures, evaluating the visual aesthetic of the design of the elements and their functionality.

The study evaluated the territories by dividing them into groups in courtyards, parks and squares, and promenades and choosing similar territories in Riga and Tallinn according to their distance from the city centre.

Based on the materials of scientific research literature, the method of mutual comparison was used to compare the surveyed areas. The obtained results were summarized in quality assessment tables and photographs.

Results and Discussion

Worldwide and in Latvia, there are many positive examples of the planning of active leisure areas, which consider the surrounding environment's aesthetic qualities and the existing infrastructure's visual quality, complementing it with the selected elements while ensuring the necessary functionality. It can be connected with the requirements contained in the planning documents or the setting of the design guidelines for the development of specific areas, as well as with the experience and knowledge of the specialists in the relevant field, knowing the assortment of elements and materials available in the relevant region, their application and specifics.

For example, Berlin's urban planning documents (Berlin Senate Department for Urban Development Communication, 2011) emphasize an accessible environment for all, precisely describing specific requirements and aesthetic visual characteristics, which are more related to informative signs or specific designs that help to navigate the urban environment, mentioning, that the planning should not be oversaturated with too many contrasting elements, which can cause confusion and affect the ability to navigate for the users of the public outdoor space, at the same time indicating that the contrasts of light, colour, and form can help orientation in the environment. However, they must be appropriate to the specific environment's planning and the applied colour code, thus drawing attention to the fact that the visual aesthetic characteristics must be adapted to the specific environment in which the improvement is planned.

Tallinn's development strategy, 'Tallinn 2034' (Tallinn, 2020), mentions that public outdoor space should be pleasant, natural, and enriched with various activities that motivate people to spend time outdoors and be active. However, nothing is mentioned about how environmental improvements should look visually. Also, the urban design guidelines of Tallinn (Zaha Hadid Architects, 2017) do not specifically mention principles for visual aesthetic design concerning active recreation areas, but it is mentioned that the improvement should be attractive, inviting, and with high architectural, landscape architectural solutions and design quality, which complements the historic character of the city and is in context with the surrounding environment.

Riga planning documents discuss integrating children playgrounds and recreational sports areas in green corridors, emphasizing the functionality of children playgrounds and recreational sports areas (City Development Department of Riga City Council, 2014, 2017).

In recent years, renovated and newly created active leisure areas have been positively evaluated in Riga, Latvia, where already at the level of city planning, it is thought about how such areas will fit into the urban environment, determining locally in the design task the conditions for structural elements, their functionality, colour and desired shape to match the surrounding environment, placing particular emphasis, but also ensuring the necessary activities and focusing primarily on the improvement of the areas closer to the city centre, making it more representative.

A positive example in Riga, Latvia, is the renovated children playground in Kanālmala greenery, located in the historical park in the central part of the city. The children playground has been modified several times over the years, keeping the sandbox space, which was already designed during the initial planning of the park to provide users with the opportunity to play with different materials, which resonates with modern trends to integrate a variety of materials, loose materials in the planning.

The children playground before the reconstruction in 2023 ‘Figure 1’ included elements providing various functionality mainly for the youngest age group of users, and their visual aesthetic design in terms of shape and color of the structural elements contrasted with the existing infrastructure in the park, not in a uniform style ‘Figure 2’. Over time, the elements included in the improvement had lost their aesthetic, visual, and functional quality. The safety cover was worn out and visually degraded, and even the concrete tiles around the trees were worn out. They did not fulfil their intended function, affecting the trees growing there and significantly lowering the overall visual quality of the area.

Figure 1. Photographic record of the children playground before the reconstruction in 2023 in Riga, Latvia.

Figure 2. Photographic record of the elements and surfaces included in the children playground before the reconstruction in 2023 in Riga, Latvia.

After reconstruction at the end of 2023, the children playground ‘Figure 3’ changed its visual aesthetic overview, creating amenities that complement the surrounding environment, integrating elements with more comprehensive functionality for user groups of different ages, ensuring a harmonious integration into the park environment, highlighting the nature of the park greenery, ensuring neutrality in the materials used and in the elements, predicting the colour tonality of the elements matched to the tree trunks, avoiding bright colour accents, choosing the thematic elements applicable to the specific environment, creating transparent constructive elements, at the same time ensuring the functionality of the elements, safety and contrasts in the parts of the functional elements, where it is necessary. In the renovated children playground, the sandbox was supplemented with elements designed for sand play, integrating elements for moving sand, thus bringing new functionality that resonates with modern trends to include free-standing, movable components in landscaping.

Figure 3. Photographic record of the children playground after the reconstruction in 2023 in Riga, Latvia.

This study evaluated eleven territories with active leisure areas, considering the nature of their planning and location at a distance from the city centre, surveying five territories in Riga, Latvia 'Figure 4' and six territories in Tallinn, Estonia 'Figure 5'.

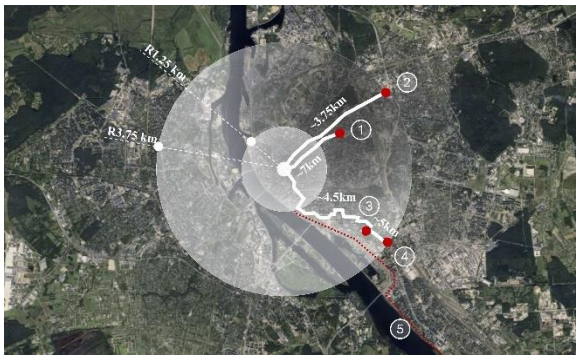

Figure 4. The location of the territories surveyed in the study according to the distances from the city centre (1 – Sport quarter active recreation area in K. Barona Street; 2 – Business and a residential quarter 'Jaunā Teika'; 3 – Latgales park; 4 – Active leisure area near multi-story residential buildings on Lubānas Street; 5 – Ķengaraga promenade and Latgales, Krasta streets) in Riga, Latvia.

The optimal boundary of the accessible distance to the city centre is assumed to be 3.75 km, which defines the limit to which the public outdoor space is easily accessible within the framework of the fifteen-minute city concept, assuming that it is the maximum distance that can be travelled in 15 minutes by bicycle (Andersen, 2021).

Figure 5. The location of the territories surveyed in the study according to the distances from the city centre (1- Business and residential quarter 'Kalaranna kvartal', 2 - Children playground next to the walking route 'Kulturikilomeeter'; 3 - Tondiraba park; 4 - Männi park; 5 - Active leisure area between multi-story residential buildings, Akadeemia street; 6 - Pirita promenade and Reidi Street) Tallinn, Estonia.

In Riga, Latvia, two studied areas fell within a radius of 3.75 km from the city centre. However, in the study, they are defined in a distance group that is further from the city centre than 3.75 km, which is related to the architectural and structural structure of the city, suitable transportation routes for walking or with bicycle, and the total approximate distance to the city centre which in this case were longer comparing straight connections.

The studied territories are divided into three groups according to the type of use of public outdoor space - public outdoor space as a place (Business and residential quarter 'Jaunā Teika', Ropažu street 14 and active leisure area near multi-storey residential buildings at Lubānas street 14, Riga, Latvia; business and residential quarter 'Kalaranna kvartal', Kalaranna Street 6a and the active leisure area between multi-storey residential buildings, Akadeemia Street 30a, Tallinn, Estonia), public outdoor space as a destination (Active recreation area of the sports quarter of the centre, K. Barona Street 116a and Latgales Park, Latgales Street 154, Riga, In Latvia; children playground next to the walking route 'Kultuurikilomeeter', 10415 and Männi park, Sõpruse street 252, as well as Tondiraba park, 13917, Tallinn, Estonia) and public outdoor space as an intermediate point (Ķengaraga promenade and Latgales Krasta streets, Riga, Latvia; Pirita promenade and Reidi Street, Tallinn, Estonia), active leisure areas in separate sections of the promenade, or the promenade itself as a connection and functional area for recreational sports activities, ensures the connection of the city centre with other neighbourhoods.

Areas surveyed in the study in Riga, Latvia 'Figure 6' and Tallinn, Estonia 'Figure 7' were evaluated according to the visual aesthetic characteristics of the infrastructure necessary for the provision of activities, evaluating the visual quality in general, determining whether it is maintained, partially maintained or not maintained. Evaluating whether it is visually compatible with the surrounding environment with visually expressive landscaping that complements the overall outdoor design, visually expressive landscaping that blends with the surrounding environment, visually expressive landscaping that does not fit with the surrounding environment, landscaping that complements the overall outdoor design, merges with the overall design of the outdoor space, or does not fit. Also, assess whether the applied materials and included elements are compatible, conditionally compatible, or incompatible with other components in the surrounding environment. In addition to determining whether the landscaping of the active leisure area includes elements, the overall design of the activity area or parts thereof is designed to provide added artistic value, which may be legible, conditional, or illegible.

The criteria for assessing the comprehensive visual quality of the territories identified in the study are divided into four groups. Points for the territory's compliance with the established criteria in evaluation systems are assigned from 0 to 2, and the average numerical evaluation of the total points of the territory is divided according to the rating distribution - low, medium, and high. Visual quality was evaluated with 0 points if the surveyed territory was not maintained, 1 point if the territory was partially maintained, and 2 points if the surveyed territory was maintained. Assessing whether the surveyed area is visually suitable for the surrounding environment, territories characterized by 0 points in the

study were not suitable or visually unexpressive, with 1 point territories that merged with the overall design of the outdoor space or complemented the overall design of the outdoor space, and 2 – visually expressive, blended in with the surrounding environment, or were visually expressive and complemented the overall outdoor design. When assessing whether the surveyed territories are compatible with other components in the surrounding environment, 0 points corresponded to the assessment that the territory is incompatible with other components in the surrounding environment, 1 – conditionally compatible, 2 – compatible. When evaluating whether solutions with added artistic value could be observed in the surveyed areas, 0 points indicated that the added artistic value was not legible, 1 point – conditional artistic value, and 2 – legible artistic value could be observed. A low rating in the study characterizes the surveyed territories with an average numerical result lower than or equal to 3 rating points out of 8 points, an average rating of 4 points, or a high rating of higher than 4 points.

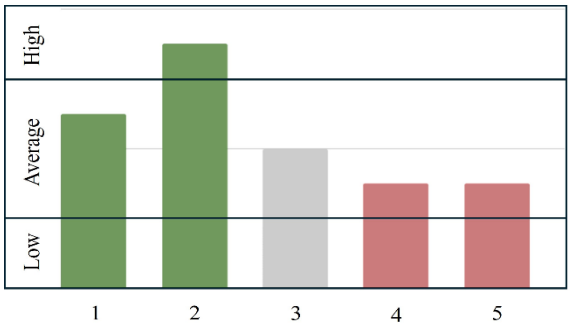

Figure 6. Evaluation of the visual aesthetic quality of the territories surveyed in the study and mutual comparison of the territories (1 – Sport quarter active recreation area in K. Barona Street; 2 – Business and a residential quarter 'Jaunā Teika'; 3 – Latgales park; 4 – Active leisure area near multi-story residential buildings on Lubānas Street; 5 – Ķengaraga promenade and Latgales, Krasta streets) in Riga, Latvia.

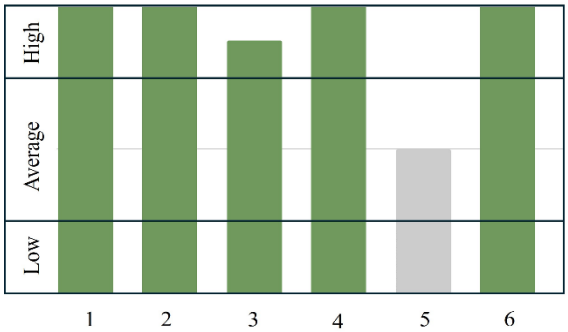

Figure 7. Evaluation of the visual aesthetic quality of the territories surveyed in the study and mutual comparison of the territories (1- Business and residential quarter 'Kalaranna kvartal', 2 - Children playground next to the walking route 'Kulturikilomeeter'; 3 - Tondiraba park; 4 - Männi park; 5 - Active leisure area between multi-story residential buildings, Akadeemia street; 6 - Pirita promenade and Reidi Street)Tallinn, Estonia.

Considerable examples of visually aesthetic improvement solutions of active leisure areas, which echo the components of the surrounding architecture and general area improvement, quality-defining characteristics, including matching the colour range contained in the surrounding environment and the structural characteristics of elements or other architectural and natural components, are the surveyed area in business and residential in the quarter 'Jaunā Teika', Ropažu street 14, Riga, Latvia 'Figure 8', business and residential quarter 'Kalaranna kvartal', Kalaranna street 6a, Tallinn, Estonia 'Figure 9'.

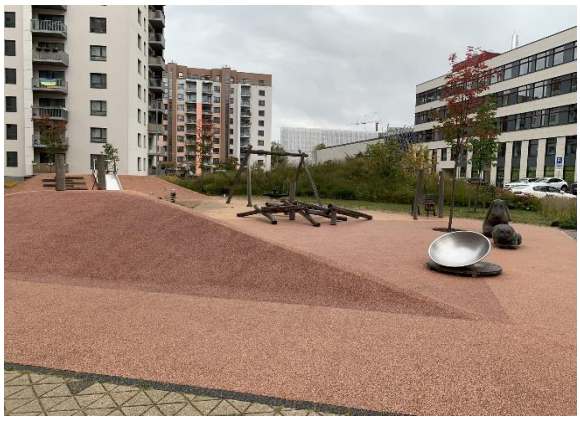

Figure 8. Photographic record of the children playground in the 'Jaunā Teika' residential block, Ropažu Street 14, Riga, Latvia.

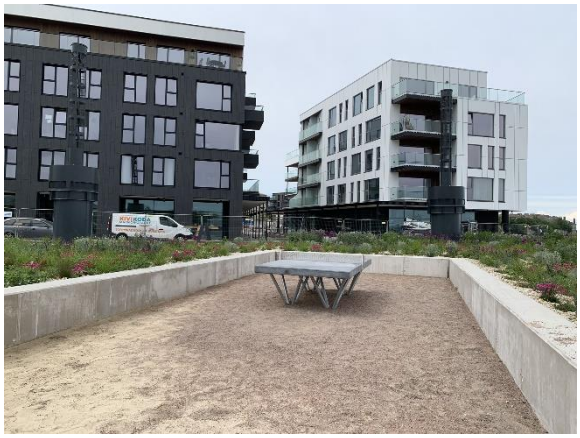

Figure 9. Photographic record of the active leisure area in the business and residential quarter 'Kalaranna kvartal', Kalaranna Street 6a, Tallinn, Estonia.

Both of these areas are relatively recently built, and the landscaping is planned to be interrelated with the overall public outdoor space, including active leisure areas, planning of sidewalks and squares, greenery, quiet recreation areas, and other parts of public outdoor landscaping.

In areas where the improvement of active recreation areas has been formed at different times compared to the surrounding infrastructure, the surrounding environment is outdated or partially degraded and

located further from the city centre, the improvement of active leisure areas is less expressive, without added artistic value, with the main emphasis on ensuring functionality. For example, we can take the surveyed active leisure area near multi-story residential buildings at Lubanas Street 14, Riga, Latvia, 'Figure 10', where a children playground and a recreational sports area have been created, using typical solutions without expressive colour or shape accents. The surrounding environment has outdated landscaping, and the active leisure area is relatively isolated from the rest of the infrastructure; therefore, it does not significantly affect the overall visual quality of the environment but rather improves it by integrating additional functionality into the overall landscaping, as well as the elements providing functionality are neutral in shape and colour, qualitatively, without significant signs of wear and tear, creates the impression of an orderly environment.

Figure 10. Photographic record of the active leisure area near multi-story residential buildings at Lubanas street 14, Riga, Latvia.

The active leisure area of the Sports quarter of the centre, K. Barona Street 116a, Riga, Latvia, examined in the study, is designed with multifaceted activities, concentrating in one place, in a large area, among the historical buildings of the centre. These various structural and visually different elements conditionally resonate with the surrounding environment, rather partially torn from the surrounding environmental context. The positive aspects in this area are the efforts to bring in artistically refreshing elements, to highlight the identity of the place, and to integrate the events and landmarks characteristic of Riga into the design of the elements, for example, the church towers 'Figure 11', the participants of the Song and Dance Festival. There needs to be more greenery that would help integrate landscaping into the surrounding environment.

In the surveyed Männi Park, Sõpruse Street 252, Tallinn, Estonia, there were also observable elements with an added artistic value, 'Figure 12', creating functional components in the theme of birds and insects. Taking into account that the landscaping with various activity areas was integrated into the existing park as part of the overall park reconstruction, in general, the integration of the active leisure area into the surrounding environment can be evaluated as visually appropriate and with expressive landscaping that matches the mood of the surrounding environment and the included theme complements the surrounding environment.

Figure 11. Photographic record of the active leisure area of the Center Sports Quarter, K. Barona Street 116a, Riga, Latvia.

The main aspects of shifting the aesthetics of elements in the background towards functionality can be related to the insufficient coverage of active leisure areas in the urban environment and limited funding that can be allocated for the establishment of such areas, as well as the location in the city plays a significant role in the visual quality and design complexity of the elements in areas further from the main primary providing functionality without taking into account the visual specifics of the surrounding environment.

Figure 12. Photographic record of Männi Park, Sõpruse Street 252, Tallinn, Estonia.

Visual changes of elements or adaptation to specific visual requirements of the surrounding environment can significantly increase the cost of the element. Such an increase in the cost of increasing the visual quality

is related to the specifics of production and the ability to adapt to the necessary changes outside of the production process of standard elements. However, this does not mean that specialists who plan this type of activity area cannot find elements suitable for the specific environment within the limited funding that would not conflict with the existing landscaping. Therefore, the visual quality of the active leisure areas can be linked to the professional abilities of planners and customers in choosing elements or the visual aesthetic properties of their components.

Conclusions

1. The influence of active leisure areas on the visual quality of the urban environment is an essential aspect that must be taken into account when planning new active leisure areas or renovating existing ones, choosing elements that ensure the necessary functionality and visual aesthetic quality not only within the activity area, with mutually consistent elements, but also in the context of the surrounding environment, ensuring the overall integration of the design solutions of the active leisure area into the overall visual aesthetic image of the surrounding environment.
2. The quality of the surrounding environment significantly impacts the creation of active leisure areas, primarily by providing the missing and necessary functionality in the surrounding area and adjusting the design of elements to be aesthetically consistent with the surrounding environment. In places where the surrounding environment is assessed as insufficient or low, the integration of active leisure areas can improve the overall visual quality of the area, positively influencing the overall quality of life.
3. Evaluating the territories in Riga and Tallinn examined in this study, the conclusion is that several active leisure areas can be considered as examples of good practice, where the choice of elements and the overall infrastructure of the active leisure area is designed taking into account the aesthetic features of the surrounding environment by highlighting or supplementing them, which can be linked to the fact that, in general, the territory has developed later and its character is more adapted to modern functional and aesthetical urban design solutions. In areas where the environment is outdated or has lost its aesthetic visual quality or is located further from the city centre, the main emphasis is placed on the functionality of the elements, primarily providing play and sports activities, implementing solutions that are more neutral from the design perspective, lowering complexity or visual quality, or implementing standardized solutions for the planning of activity zones, which could be observed in several surveyed areas in Riga.
4. When evaluating the visual aesthetic aspects of the already implemented active leisure areas, it should be considered that the general image of each territory is significantly influenced by the overall visual and physical nature of the particular territory, specific requirements concerning adjustable standards, or significant restrictions, subjective aspects of the customer and the designer, which are related to the available funding or necessary functionality, planning experience and understanding of visual aesthetic inclusion in the context of the relevant environment as well as user experience, generalizing specific needs and community vision.

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