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Changing the Qualities of Urban Space by Means of Landscape Architecture

Abstract. The relevance of the subject is dictated by the growing need to satisfy the physical and mental demands of city residents and create locations with high aesthetic and functional qualities. The purpose of the study is to examine the main modern trends in the design of urban landscape objects, formed since the 1990s in terms of their compliance with modern concepts of sustainable development, landscape urbanism, and urban ecology. The study analyses a number of experimental, explorative, and implemented projects of landscape objects, created to determine, emphasise, or create a new identity of local places in the historically formed structure of cities (on the example of the cities of Lviv, Lutsk, Kamianets-Podilskyi). The monographic and analytical methods were used in the study. A graphic method was used to determine the attractiveness of objects. The study establishes the following characteristic feature of historical cities: in old parts of cities, the effective concepts of landscape proposals are based on the expression of local identity. For example, it was found that the square near St. Andrew's Church in Lviv features garden and park art of the Baroque epoch, the public space project at the intersection of St. Prince Roman and I. Franka streets in Lviv conveys a compilation of historical features of different epochs. The second characteristic feature established in this study: in the degraded environment of peripheral neighbourhoods (investigated examples in Lviv and Lutsk), the proposed modern forms and geoplastics work well. It was also confirmed in various examples, such as the reconstruction of Mytna Square in Lviv, and the volunteer movement in Kamianets-Podilskyi, that successful intervention in the transformation of urban public spaces contributes to the growth of the quality of these spaces and the improvement of the city's image. The design concepts of the urban environment with a multi-layered complex structure of both natural and cultural elements are valuable and recommended for implementation. The history of city development during the Soviet period eliminated their specific features. Today, the restoration and creation of landscape objects allows for preserving and emphasising the uniqueness of cities

Keywords: sustainable development projects in cities, landscape design, identity of local places, renovation of the urban environment elements, reconstruction of landscape architecture objects

INTRODUCTION

In modern world practice, landscape design is increasingly interlaced with city planning. The sphere of activity of a landscape designer is wide: from landscaping to the planning of new residential areas with all infrastructure, and

projects of recreation zones with street furniture. The landscape architecture of the specialised public places should fulfil a multitude of functions in harmony with the surrounding nature, have a well-designed infrastructure, and stay aesthetic. Landscaping can solve many city problems

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by improving the functional organisation of the space and its ecological parameters.

After the 1990s, the urban landscape of post-socialist Central European cities has been radically transformed by new forces and trends, infused by the free market, democracy, and liberalisation. This has led to landscape cleansing and recycling, as these former communist nations used new architectural, functional, and social forms to transform their urbanscapes, their meanings and uses [1]. In addition, since the mid-1990s, two ideas emerged with implications for how the cities in the twenty-first century are planned and designed: landscape urbanism and urban ecology. Landscape urbanism evolved from design theory within architecture and landscape design. Landscape ecological urbanism offers a potential strategy to bring ideas from landscape urbanism and urban ecology together to create new territories that reflect cultural and natural processes [2].

The purpose of the study is to examine the projects of public spaces and modern trends in the design of urban landscape objects, created after the 1990s, in terms of their compliance with the concepts of sustainable development, landscape urbanism, and urban ecology. The main goal of the study is to establish whether there is a relationship between the modification of the qualities of the urban public space and its physical transformations with the tools of landscape architecture.

However, the study highlighted the preferences of residents as well. The optimal combination of landscape elements is the open landscape with flowing water, a shaded square, rich vegetation, a road, and seats [3]. The evidence of a specific connection to tree canopy inherited from the environment of human evolutionary adaptation was also revealed. That connection forms attitudes to the landscape today [4]. In recent times, city residents have been seeking comfort both inside and outside their homes. The search for comfort outside of homes, in particular, has increasingly focused on satisfying both the physical and psychological needs of city population. Efforts should be made to create locations with aesthetic and functional qualities to satisfy such demands [5].

The creation of new elements of a system of green spaces (parks and squares) that require substantial territorial resources is too problematic given the dense urban development and high cost of land in big cities (in the example of Kyiv). Therefore, increasing the level of improvement, and attractiveness of the existing elements of the city's green space system should be a priority to ensure a sense of urban comfort and meet the need for green areas [6]. The streets, squares, and buildings create the image of towns and cities. Cliff Moughtin explores the street and square in terms of function, structure, and symbolism and examines fine examples in their historical context. These are set against the background of the laws of urban design composition, borrowed from Renaissance and modern writers [7].

The term sustainable development, under which the system of exploitation of natural resources was considered, by which they are not wasted and have the possibility of natural renovation, has become a successful theoretical approach for the creation of a life-giving environment for

a human being. Green areas are not just about aesthetics. First, they are about the city's energy balance and residents' health [8].

The concept of sustainable development is new and important for rethinking the existing urban environment. However, like every accepted general theoretical area for the development of the profession, it relies on many issue-related approaches in the area of the development of society and its needs and branch concepts, theories, means, etc.

The introduction of landscaping into city structures to create a comfortable environment in planning-composition aspects relies on modern global tendencies of landscaping, which have an author's vision but rely on sustainable development. For example, D. Holmes emphasises the following trends: Mitigating Climate Change, Evidence-based design, Greater emphasis on the value of outdoor space, Focus on Landscape Maintenance, Temporary spaces will transition (Temporary spaces will continue to be used by cities to (re)activate spaces, with some transitioning to be permanent spaces including outdoor dining, bike lanes, street plazas, art installations), Landscape Conservation & Restoration, Increasing Biodiversity and Reducing Weed Invasions, Regional Growth and development [9].

The newest trends point to the necessity of building identity (new one or reproduction of historical) of the designed spaces [10]. Considering the particular characteristic of the city location, and its cultural legacy, it highlights the importance of selected items in the design of the landscape [11]. The authors' techniques in the sphere of didactic work [12], and project realisations, demonstrate the understanding of the modern tendencies in the creation of the public spaces that are most in-demand.

MATERIALS AND METHODS

In the research process, the monographic (to review current processes in the establishment of landscape objects in the urban environment), analytical (focused on the decomposition of projects into parts and elements to determine their essence and consequences of the impact on the environment), and graphic methods were used to determine the number of mentions of attractive elements of landscape design. In addition to conventional, the main methodologies used for the classification and identification of green areas, transects, urban landscape, and multitemporal analysis without forgetting the population's perception and their relationship with socio-cultural aspects.

The first stage of the research: the establishment of a list of selected objects in three cities that contain a substantial historically formed part of the cities: Lviv, Lutsk, Kamianets Podilskyi. In the study, 5 criteria for the selection of objects were applied: 1 – the time of the creation of the object (1990-2020); 2 – the object is located in a historically formed environment or in a degraded urban environment of the Soviet period; 3 – the object is a project with landscape techniques of environment transformation; 4 – the object has already been implemented and it has a certain impact on the environment; 5 – the investigated object has an important meaning for the city.





The second stage of research: analysis of selected objects according to research priorities (analytical method): 1 – qualitative impact on the urban environment in which the object is located; 2 – tools with which the object affects the environment; 3 – user interaction with public space.

In the third stage of the research, an analysis of the author's vision for each project and its level of implementation of it was conducted.

The fourth stage of the study: a comparative analysis of the objective factors of the change of the urban public space (the results of the second stage) with the subjective author's intentions and expectations of the designers regarding the change of the public space as a result of the implementation of the objects (the results of the third stage) was conducted. In the final stage of the study, conclusions were made regarding the real impact on the quality of the urban environment and their comparison with the perception of visitors using the analysis of local press reviews.

The study uses comparative analysis – identification of properties and characteristics based on data and research of individual projects. The presented projects are analysed for compliance with the location (comparison of the use of plots before and after the implementation of the project based on the resources <https://earth.google.com/web/>, <https://www.openstreetmap.org/#map>, photos on the Internet, information on the websites of authorities), functional feasibility (discussions in local media, for example, popular in Lviv – *Tvoje misto* [13], *Zahidnet* [14], citizens' complaints to local self-government), compliance with the conditions of sustainable development (connection with bicycle paths, availability of space for all age categories, the ratio of open ground to paved, quality of landscaping, presence of water), public benefit and attractiveness (for example, for functioning objects, a modern dynamic indicator is the number of thematic hashtags on Instagram).

RESULTS AND DISCUSSION

Landscape elements of today's urban environment are not always acceptable, they often require reassessment and reconstruction. Post-industrial activity and ecological aesthetics are relevant in the context of sustainable development. At various professional web resources [15–17], there is an active discussion of the implemented top parks, squares, public spaces, and architectural objects related to post-industrial aesthetics [18]. For example – the parks of the Madrid Río project (Madrid, Spain, from 2005), *Prsełomy Centre for Dialogue in Solidarność Square* by KWK PROMES (Szczecin, Poland), *Nørreport Station* by Gottlieb Paludan Architects (Copenhagen, Denmark), *New Lift to the Old City Centre* by Carles Enrich (Gironella, Spain, 2015), “*R-Urban*”: *Network of Urban Commons* by Atelier Architecture Autogérée (Colombes, France), *Garden of the Heavenly Hundred* by the volunteers (Kyiv, Ukraine), *ODA Transforms an Old New York Brewery into Denisen Bushwick* (New York, USA), *RCH Studios Revamp of L.A.'s Music centre Plaza* (Los Angeles, USA), *Urban Redevelopment of Marechal Deodoro Square* by Sotero Arquitetos (Brazil) [19]. Degraded spaces that need to be rethought are especially common in

post-socialist cities. Post-totalitarian spaces with time-destroyed modernist arrangements are more frightening than attractive, as shown by the experience of working on the project of the main square in the city of Khmelnytskyi [20].

Conceptual designing of the landscape environment – public space using elements of landscape architecture in the former city environment, most often on the level of a public garden, yard, square, boulevard, or a park zone, is a widespread phenomenon in the didactic process, and city initiatives (initiated by the city administration or active residents).

Greenery always influenced the image and character of the city. Its presence essentially increased the value of the environment. Parks and urban green areas can be considered as a kind of indicators of civilisation development and living standards [21]. The number of interpretations of sustainable development in various fields is increasing, and in the field of landscape architecture, a definition has been taken that develops the basic concept. Sustainable development is based on equality between generations, species, and groups. It envisages economic growth and development that complement each other and are not antagonistic towards the environment and society. This is the kind of economic development that does not undermine the natural basis for future generations and ensures environmental sustainability. Sustainable development is a process of harmonising humanity and the environment, it is also a co-evolution of man and the biosphere. Ultimately, the main purpose of landscape architecture is to care for the environment and ensure its development [22].

The concept of sustainable development [23] is essential for rethinking the existing urban environment and creating a new one. However, like every accepted theoretical area for the development of the profession, it relies on many issue-related approaches, which lie both in the area of the development of society and its needs and branch concepts, theories, means, etc. Many open spaces proved to be particularly flexible in serving the general population. These findings they help contextualise current debates concerning the socioeconomic, political, and urban ecological functions of open and public spaces [24]. Historical transitions and contemporary development of the structure of areas of greenery within are notable, e.g., Cracow's city blocks [25].

The master plans of the cities envisage the construction of green corridors for cities and regions. It is being developed for the whole city, such as in Detroit the *Green Infrastructure Spatial Planning (GISP)* model. The GISP model provides an inclusive, replicable approach for planning future green infrastructure so that it maximises social and ecological resilience [26]. Equally important in global practice are projects that develop the optimal ideology that meets the challenges of the 21st century in the centres of historic cities and contributes to the preservation of the historic urban landscape. Researchers offer real approaches to the establishment of environmental projects, including the modern arrangement of urban squares, waterfront areas, etc. [27]. Non-conventional means are involved in the



preservation of the urban landscape, furthermore, storytelling and mapping can be used to actively involve people in urban conservation, providing insight into the attachments that citizens have to their urban environment. Moreover, the very accessible forms of social media enhance public knowledge of historic urban landscapes [28]. Particularly active humanisation and creativity of the environment through the implementation of landscaping projects has intensified in post-socialist cities as Bucharest (Romania) [29], Liepaja (Latvia) [30], the iconic Maidan Nezalezhnosti in Kyiv for Ukraine [31], Prsełomy Centre for Dialogue in Solidarność Square (Szczecin, Poland) [32], etc.

The same approaches are relevant for the cities of Ukraine. The master plans of the cities direct the project activity for decades, and the strategies of urban development and the distribution of the city budget among the priority areas in the field of landscaping and improvement allow quickly achieving the effects of improving the environment. Several substantial projects have been analysed in this study in the context of world experience in the cities of Lviv, Kamianets-Podilskyyi, Lutsk, which are distinguished by a valuable historically formed environment.

Project proposals of the square Reconstruction near St. Andrew Church in Lviv. For historical landscape objects, a number of classical analyses are used, however, introductory studies of the location in the context of the city should preferably be performed using multidisciplinary techniques that determine approaches to design. Multicriteria SWOT-analysis identified positive and negative qualities of the space of square near St. Andrew Church [33].

Positive qualities of the public space:

- the square is located on transit routes between several busy streets, so there is always a large flow of users; in this place, pedestrians have the opportunity to slow down, relax, and enjoy the environment;
- due to old large trees, the square is partially shaded during the day, which creates coolness and comfort for visitors;
- the place is located near the old defensive walls of the city, so an attractive excursion route of Lviv passes here, this place was the garden of the Bernardine monastery, so a special atmosphere prevails;

- the square is a good place for holding small fairs, festivals and other cultural events.

Negative qualities:

- the composition and landscaping of the square need to be arranged;
- the configuration of the paths does not correspond to the way the territory was occupied, the old lanterns, benches, and other equipment are very worn and do not correspond to the general style of the square;
- neglecting the care of trees and their chaotic planting create a negative impression;
- poor lighting in the evening and at night forces pedestrians to bypass it.

The project concept considers the style of the ensemble of the square and other landscape objects of the UNESCO protection zone in Lviv [34]. Analysing the historical environment of the square near St. Andrew's Church, the current state, and the style of the surrounding buildings identified the dominance of the Baroque style, to which St. Andrew's Church and the monastery belong. When reconstructing this area, it is desirable to use stylistic motifs inherent in the main elements of the architectural ensemble. Characteristic features of garden and park art of the Baroque era are the regularity and symmetry of planning; diagonal alleys; more complex than before, sculptural compositions of fountains and cascades; parterres and their ornaments of elegant, dynamic form; planting trees in bosquets and developing topiary art [35].

The main concept of designing the square is based on laying the main longitudinal axis – the alley. The perpendicular path is placed against the monastery wall and divides the square into four parterres. At the end of the central alley (on the side of Halytska Square), a square in the shape of a semicircle is designed, and on the opposite side of the alley – a fountain of the same shape. The main attractive elements of the square during the day will be a fountain, paving, flower beds, and topiaries, and in the evening all the paths of the square will be illuminated by decorative warm lighting. It is suggested to use outdoor furniture made of natural stone with wooden elements for seating. High green areas should be formed with fruit trees, mainly pears, which would emphasise the tradition of the place as a city garden (Fig. 1).

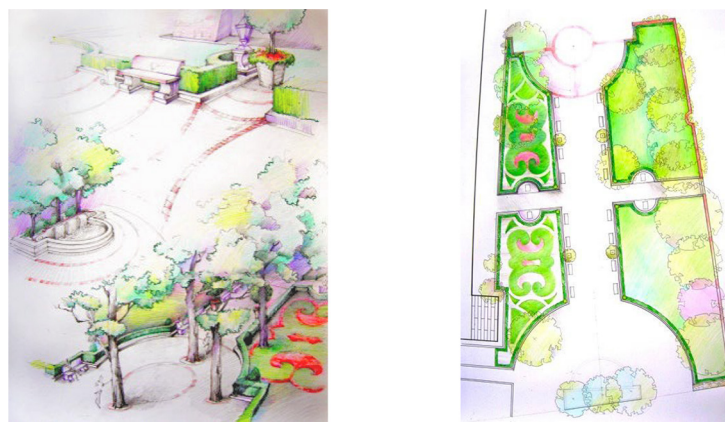


Figure 1. Sketches for the reconstruction of the square near St. Andrew Church in Lviv

Source: [33]



The project of reconstruction of the square on the outskirts of the historical area in Lviv. For this project, the abandoned territory of the triangle form between the streets of the existing block of buildings of the 19th century was used. The dominant tree appeared as a result of the “explosion” of nature to the outside. This action also left a mark on the undulating

surface of the square covered with the lawn. The waves are emphasised by benches, and drops are spreading from the “explosion”, symbolised by the pool filled with water (round-shaped lamps are arranged in a chaotic order on the grass beds). The shape of the circle is frequently repeated on the lawn due to the sowing of different grass mixtures (Fig. 2).



Figure 2. Project of the square renovation on the outskirts of the historic area in Lviv

Source: [36]

Project of public space in an intensively used urban environment of Lviv (historical part of the Halyskyi suburb, the intersection of Kniazia Romana and Ivana Franka Streets). The territory of the intersection of streets Knyazya Romana and Ivana Franka is unattractive, overloaded with people and functions – public transport stops food courts. In addition, part of the square is not used much – there are non-working stalls and public toilets in the square abandoned due to lack of funding, but not dismantled. The positive qualities of the location are its transit location between several streets, a substantial number of trees, the great potential of historical and tourist sites near the area, and the proximity of the location to the main tourist locations of the city. The negative qualities of the territory include the planning structure, which is inconvenient for pedestrians; poor

lighting in the evening and a lack of care for green spaces. This leads to residents trying to bypass the place.

The project proposal considers the historical and cultural layers of this place (Fig. 3). As a sign of remembrance, it is recommended to place an installation that resembles the Church of the Epiphany in silhouette. In the southern part of the square, it is proposed to create a water surface symbolising the underground river Poltva. Such measures will increase the attractiveness of the territory for city residents and tourists and improve the microclimate of the park. This idea also considers the plan of sustainable mobility in Lviv – the square will become one of the main bicycle mobility sub-centres of the city, which will connect bicycle routes from the sleeping areas of the city to the centre [37].

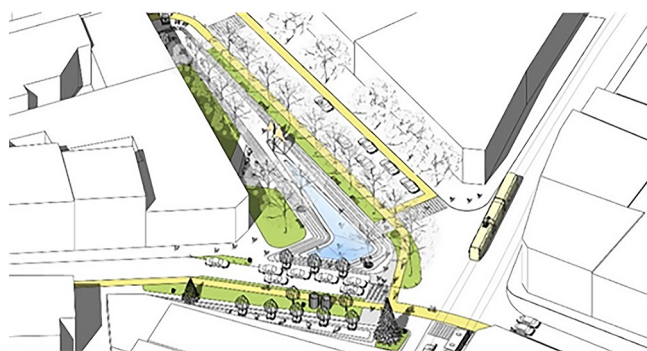


Figure 3. Perspective image of public space on the intersection of Kniazia Romana and Ivana Franka Streets in Lviv
Source: [38]

Implementation of landscape projects in the living environment in Lviv. Here, the design process is based on involvement and together with a process of consultation with local residents. Children and adults express possible wishes on behalf of the residents, which determines the goals of the design project. The work of designers consists in interpreting the public’s expectations and providing

an original spatial response to expressed wishes. In addition, the designer monitors compliance with norms and rules and equality between the various interests of different groups of users. The most popular are the proposals for the design of a children’s playground in an urban environment (Fig. 4).

The usual image of poor modernist landscaping is changing. For example, decorative herbs – lavender, sage,

and rosemary – are often planted. They are less decorative but have a smell. With this, in particular, they interest children, encouraging them to learn. This is how educational gardening works: the child learns what the spices added to food look like in nature. In addition, planting

herbs is more profitable from the financial side, since they are all perennial or self-sowing [39]. The creation of a new landscape environment is particularly relevant in connection with the permanent process of densification of urban development [40].



Figure 4. Sketches for the reconstruction of the square near St. Andrew Church in Lviv

Source: [41]

The revitalisation of the degraded historical environment in Pidzamche, Lviv. Pidzamche district, as its etymology prompts, was formed in princely times (13th century). It was a workers’ suburb with intensive industry from the 19th to the mid-20th century. During World War II there was a ghetto for Jews, which became devastated, like the impoverished population [42]. The ideas concerning the positive solution to depressive city territories of different character lately have been solved through the so-called workshops (events called “City Workshop”, which began in Lviv

in 2015) [43], which can be initiated by various governmental and non-governmental organisations for the benefit of creating new communities around the place of residence, work or recreation (Fig. 5).

Such workshops lead to the activation of the local community, involve children and teenagers and establish positive communication with random passers-by. An especially valuable consequence of such a workshop is the interaction with residents and their involvement in the transformation of their living environment.



Figure 5. Creating the local spaces in Pidzamche, Workshop of city 2015

Source: photographed by the author in Pidzamche, Lviv

Workshop as a way to work on the project has spread to all types of designing and solving any architectural, planning, and spatial tasks of varying complexity and different urban scale [44]. The workshop is not only a method of solving architectural and planning tasks, this design and conceptual approach can achieve good results in other areas, such as activation of the place, return to life of abandoned areas, revitalisation of public spaces, restoring a positive image of downcast areas, return of people to urban spaces. In the future, the problems of connecting “detached” public spaces with the structure of public spaces in the city, bringing them back into use, establishing a positive identification by residents and users, and the revival of abandoned

post-socialist spaces remain relevant. Such cooperation of inhabitants, initiative people, and designers is a manifestation of **tactical urbanism** [45] – if the location accented in a new way begins “working” and attracting visitors, it is a sign for conducting further similar events.

The Programme for the revitalisation of Pidzamche, suggested by the city, served as a guide for the project. The technique of “city acupuncture” was chosen for Pidzamche. Learning of local history [46], its modern problems, considering social character, forms proposals of landscape-designer elements on small scale, adjusted to the temporary activity of architectural, cultural, and artistic character, assigned for particular, selected space in the district.



In this case, there was a mental transformation of the place, because it changed in the perception of visitors. The workshop offered a new functional interpretation of the place: for example, lectures or photo sessions. Since the measures were short-term, there were no substantial changes in the quality of public space. Successful realisation – Mytna Square in Lviv. Elements of urban design are the most dynamic, and the tradition and value of each place along with the

introduction of new design trends need to be emphasised. Thorough urban planning analysis and the first ideas of the revitalisation of the square were tested during a workshop in 2014 [47; 48]. The concept of sustainable development of the city in the vision of the authors of the reconstruction of Mytna square in Lviv merged into several creative approaches, which were to turn a noisy transit place into a qualitatively different space with new properties (Fig. 6).



Figure 6. Today's life of Mytna square in Lviv

Source: [41]

Mytna square was chosen as an example for a practical architectural workshop to demonstrate how to create a comfortable environment for people staying in the city and how the square can be an integrating element for the community. Today the square is often visited by tourists, passers-by, and students, there are a coffee bar and one kiosk there. The actual analysis of the condition before the reconstruction shows that people do not stay for a long time, passing by the square in transit.

Although, there are big potentials in it: the Pinsel Museum with the unique collection of wooden barock sculptures, the Polygraphic college with thousands of students, and two transport stops provide a steady stream of people through which the square is alive. Today the old architecture has lost its attractiveness, it looks battered and in need of restoration, landscaping and the square of the Soviet type is worn out, and trees and bushes are unkempt and wild.

As a result, ordinary public spaces of post-soviet design coexist with historical monuments, not correlating with each other. The idea of the workshop is to bring life back to the neglected area and to make impetus to create a local community, integrating everything around it. The main problem is that the square does not longer perform its functions as a public space.

Tasks for the revitalisation of the Mytna square are to return the identity of the square; to create a cosy area; to receive the impregnated square; to highlight the importance of the square as a museum; to make it greener, shaded, and with comfortable street furniture design [49].

The project of revitalisation of Mytna square was awarded the prize: “Space” and diploma of laureates of the competition “Prize of National Society of Architects of Ukraine 2018” in the nomination “Landscape architecture” (realisation) [50].

The attractiveness of Mytna Square was investigated through the study of social network hashtags in a quantitative way, this technique is often used by researchers today [51]. A statistical analysis of the hashtags #Lviv, #lviv, #ploshcharynoklviv, #lvivrynoksquare, #ploshchamytna, #mytnasquare on the Instagram network, which were chosen by continuous sampling (Table 1), was used in a specific study. The results indicate that hashtags (#Lviv, #lviv) were used quite often. As for city objects (squares, streets, architecture), the frequency of their use is substantially lower.

Notably, its specificity is dependence on active events in the country and any other emergency situations, and hashtags change their positions in the ratings due to their relevance and user activity.

**Table 1.** Using hashtags on the Instagram network

Lviv	
Hashtag	Number of uses on the Instagram
#lviv	4400000
#lviv	6900000
#ploshcharinoklviv	100+
#lvivrynoksquare	100+
#ploshchamitna	100+
#mytnasquare	100+

Creating the image of the city by means of landscape architecture. City Kamyanets-Podilskyi has a long tradition of landscape art [52]. Active citizens of Kamyanets-Podilskyi share the opinion that city green space is an important image-creating factor for the city. In such a way, in 2019 an initiative group “urban picnic” was created, attempting to demonstrate to the city residents that the community has influence and can cooperate with city administration for

solving modern city problems [53]. The group of participants regularly take part in the organisation of public educational events or public actions with attention to the thesis: “Changes begin with small steps, that each of us is involved in”. One such action was the volunteer movement concerning the revitalisation of boxwood plantings on the green stripe in Kniaziv Koriatovych Str., it was aimed at preserving plantings from cutting (Fig. 7).



Figure 7. View of the boxwood alley, insufficient condition of the greenery, the process of forming bushes and the result
Source: photographed by Sergiy Kovalenko

There were problems with the quality of the greenery because it did not have proper care for years – linearity has been broken, some bushes had lost parts, and the area in between rows (once this space was planned as a boulevard) got littered, and lack of thorough viewing created inconvenience for traffic. It was not in vain that the city authorities decided to deal with a number of these problems, but the appropriateness of the chosen methods, according to activists, was questionable. One of the three parts of the boxwood strip was completely uprooted, and roses were planted instead.

It is known that trees and bushes keep the temperatures down much better than flower beds, and the streets of Kamianets-Podilskyi were already poor in bush plants. An initiative group “Urban Picnic” headed by Viktoriia Zhelikhovska organised volunteers and invited a master of topiary art Andriy Bout, under whose guidance the formative cutting of boxwood bushes was conducted to apply an alternative approach, making the plants become not a barrier, but rather a visiting card of the city.

Urban Picnic – an informal association of Kamianets-Podilskyi people from different professional fields, who preferred not to stand aside but to take part in the transformations of Kamianets-Podilskyi. The main goal of this group is to motivate city residents to take part in the establishment of open public spaces, defend their right to a quality arrangement, and initiate the introduction of modern environmental

approaches to landscaping. The main method of achieving the goal is setting the example, in particular through the organisation of thematic events and workshops, involvement in competitions for funding within the public budget, and coverage of it on social networks [54].

The programme included a master class in topiary cutting, professional coordination of volunteers’ work, a workshop in rooting boxwood plantings, a photo zone, live music, and professional photography and filming of the process. In such a way, they succeeded in attracting general attention to the subject of preserving and organising green plantings in the city and received a good reaction from professional landscapers and urban planners. The confirmation of the organisers conducting the given task on the proper level is the fact that they were invited to make a speech at the international “Landscape forum 2019” in Vinnytsia. The main positive result of the initiative “Let’s save boxwood!” – it was picked up by the local administration and the establishment of a topiary alley continued.

The design concept of landscaping for a small square in Lutsk. A typical situation, when the environment created in the 1970-80s is unattractive and dominated by the transit pedestrian movement (Fig. 8; 9). According to the concept of the project, the ascetic modernist planning of the district and the square required the creation of a local accent for the new spirit of the place.





Figure 8. Square in the Lutsk historical environment (above) and design-concept (below)

Source: [55]

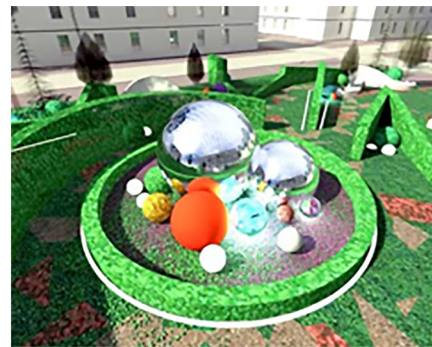


Figure 9. Details of landscaping for the square in the Lutsk

Source: [55]

The concept of landscaping a small area is to create a labyrinth in planning. The main purpose of this is to catch the pedestrian's attention and change their trajectory of movement and perception of the environment. Small architectural forms are placed in the middle of the labyrinth, created according to the principle of material and size contrast. Benches and cut bushes exchange figurative content – concrete benches take on plastic forms, and greenery turns into clear geometry. Benches are not only for relaxation; they are a way of combining trees – existing and planned.

CONCLUSIONS

The result of the urban vision and intervention in the existing conditions of the city was a number of design and implementation proposals. Applied techniques and solutions are based on a number of features obtained from the analysis of the existing environment and its history; discussions with city residents and their involvement in supporting design objects in the future. Intervening in the design of the urban environment, in both large and small areas, is an opportunity not only for a new design of the area but also for changing the perception of the place and its meaning in the city space.

In the historic area of the city, the concept and methodology of project proposals for the redesign of the space, regardless of its condition, are based on the expression of identity through correspondence to the style of the environment and historical artefacts. Thus, the square near St. Andrew's Church in Lviv is dominated by the main longitudinal alley and characteristic features of the park art of the Baroque epoch, and the public space project at the intersection of Kniazia Romana and Ivana Franka streets conveys historical features of the long-gone building. In contrast to the monotonous environment of Soviet public spaces, bold modern forms and geoplastics are offered (examples in Lviv and Lutsk). The reconstruction of Mytna Square in Lviv is an example of the transformation of the transit zone into an atmospheric space with new properties, accents, local functions and traditions, supplemented by green spaces.

Involvement of city residents in urban development is crucial for maintaining a high quality of greenery (volunteer movement for the revitalisation of boxwood plantations on Knyaziv Koriatovychiv Street in Kamyanets-Podilskyy) or even creating a new local space in an abandoned area (Pidzamche, Lviv).



The design process is aimed at building a human-friendly environment in which a person will feel like an active participant in the urban landscape with its multi-layered complex structure of natural and cultural elements. The idea developed in the urban environment design concept should be clear to future visitors. Therewith, in addition to functional and formal, value aspects are growing.

For landscape objects in a historically formed environment, valuable qualities are the restoration of the tradition of the place, saturation with artefacts and new functions, the introduction of ideas of balanced development, and considering the psychological needs of society. This is important given the current trends of globalisation and the threat of losing the individual character of urban spaces.

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Зміна якостей міського простору засобами ландшафтної архітектури

Анотація. Актуальність теми продиктована зростаючими потребами у задоволенні фізичних і ментальних запитів жителів міста та потребою у створенні локацій з високими естетичними та функціональними якостями. Метою статті є дослідження основних сучасних тенденцій проектування об'єктів міського ландшафту, що сформувалися з 1990-х років, на предмет їх відповідності сучасним концепціям сталого розвитку, ландшафтної урбаністики та міської екології. З цією метою в статті проаналізовано низку авторських експериментальних, дослідницьких реалізованих проектів ландшафтних об'єктів, метою яких є виявлення, підкреслення або створення нової ідентичності локальних місць в історично сформованій структурі міст (на прикладі міста Львів, Кам'янець-Подільський, Луцьк). У статті використано такі методи дослідження: монографічний метод, аналітичний метод. Для визначення привабливості об'єктів використовувався графічний метод. У статті встановлено наступну характерну закономірність, властиву історичним містам: у давно сформованих частинах міст ефективні концепції ландшафтних пропозицій базуються на вираженні місцевої ідентичності. Наприклад, встановлено, що на площі біля Андріївської церкви у Львові домінують характерні риси садово-паркового мистецтва епохи бароко, проект громадського простору на перехресті вулиць Св. Князя Романа та І. Франка в с. Львів передає компіляцію історичних особливостей різних епох. Друга характерна закономірність, встановлена в цій статті: у деградованому середовищі периферійних мікрорайонів (досліджені приклади у Львові та Луцьку) добре працюють запропоновані у проектах сучасні форми та геопластика. Дослідження різноманітних прикладів, таких як реконструкція площі Митної у Львові, волонтерський рух у Кам'янці-Подільську, також підтвердили, що успішні інтервенції у трансформацію міських громадських просторів сприяють зростанню якості цих просторів та покращенню іміджу міста. Цінними та рекомендованими до впровадження є концепції дизайну міського середовища з багат шаровою складною структурою як природних, так і культурних елементів. Особлива історія розвитку міст радянського періоду нівелювала їх особливості. Проте сьогодні процес реставрації та створення ландшафтних об'єктів дозволяє зберегти та підкреслити унікальність міст

Ключові слова: проекти сталого розвитку у містах, ландшафтний дизайн, ідентичність локальних місць, реновація елементів міського середовища, реконструкція об'єктів ландшафтної архітектури

