

Facilitating Sustainable Development of Urban Landscape by Involvement of Local Territorial Communities in Vilnius City

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ABSTRACT. The article analyses importance of territorial communities in the process of urban development of a modern city from the aspect of facilitating public involvement for improving aesthetic, functional and ecologic quality of urban landscape. More sustainable qualities of urban environment are achieved by direct involvement of the local territorial communities into programming, planning, constructing, managing and further modifying the elements of landscape system. The topic is disclosed by the analysis of wide international planning and implementation practices, and by comparative socio-economic research. The article arguments in favour of urban communities in Lithuania to be given a more influential role in developing individually shaped solutions for sustainable urban landscapes. Based on the case study of the selected residential area in Vilnius City, the way of activating the local residents' groups is presented. The problem of miss-match between the informal setting of urban communities and the formal territorial subdivision of local territorial authorities is outlined by comparing the informal network to the formal administrative subdivision. The article demonstrates how the potentials of implementing territorial structure of informal territorial communities are empowered by modifying the legal boundaries of local urban authorities and by providing a local community with a role of a strong stakeholder in all phases of planning, construction and maintenance of urban landscapes. The associated local residents get more opportunities to contribute to planning and development programs of landscape empowerment and to increase the aesthetical, social and environmental quality of urban architecture and enhance the quality of life.

KEYWORDS: urban landscape, urban structure, quality of life, urban territorial community, public involvement, identity.

The article aims to discover and analyse the problem of stimulating expression of identity of local territorial communities in a historical setting of a modern city. The groups of urban residents have inhabited very different areas of a city and through the historical periods of urban development have gained a specific type of their lifestyle which to our deepest belief has been greatly influenced by the character of the environment. Specific features of environment primarily expressed by the character of its landscape have had a strong impact on the profile of local communities in the meaning of their housing and employment, mobility and transport, leisure and recreation, services etc. As the intermediate report of a multi-layer cross-sectorial research, the article focuses on development and identification of local territorial communities that through the centuries of development have acquired a definite territorial identity in Vilnius City. The topic has been sporadically studied by Lithuanian and international researchers, but it still lacks a more detailed look at this issue. The problem of miss-match between the informal setting of urban communities and

the formal territorial subdivision of local territorial authorities is outlined by comparing the informal network to the formal administrative subdivision. A set of methods on how to analyse and generate solutions to the outlined problem and to facilitate creating of the network of local territorial communities that correspond to their naturally formed territories is presented and demonstrated in terms of Vilnius City.

I. EUROPEAN AND NATIONAL POLICIES FOR INTEGRITY OF URBAN COMMUNITIES

The problem of involving communities in sustainable development of urban architecture has been much discussed both on national and international scales. According to "Council Conclusions on Architecture: Culture's Contribution to Sustainable Development" [4], the Council of the European Union considers that *'reflecting, through innovative approaches to architecture and urban planning, developments in population lifestyles, particularly issues of mobility and demographic change, as well as objectives of social cohesion, social mix, intercultural dialogue and civic involvement'*, which affirms that architecture is a fundamental feature of the culture and the fabric of life of each of our countries.

A resolution adopted by the Lithuanian government "On approving a list of fields of architecture to be developed in Lithuania" [11] emphasizes the significant role of architecture as a unique art in the country, implying that every citizen should actively participate in the process of architectural development. According to the Bristol Accord [5], the agreement adopted on 6th December, 2005 at the informal meeting of the ministers of foreign affairs from 12 EU countries, the key indicators of sustainable community were defined with the emphasis on involvement of society into urban development of the border regions.

The ideas of communicative planning can foster greater public involvement into the planning processes and by this can enrich physical design processes (Walters 2007: 57). Planning regulations of different countries set the legal basis for public involvement into urban planning process. The new mandatory regulation of the UK "Local Development Framework" [10] requires that every planning authority establishes social contacts to allow for the wide public participation in designing and evaluating spatial, economical and environmental strategies for the planned development. Famous British community architect Rod Hackney in his well-known book "The Good, The Bad and The Ugly. Cities in Crisis" [6] presents a series of case studies of local communities where negligence of public opinion has caused great social unrest arising as a result of dissatisfaction with

governmental deconstruction and demolition policies in the UK in the early 80s. In the European research programs, urban scientists have been focusing on the importance of involving community into solving different urban problems as housing, services and recreation in particular. The research of planning the mobility and recreation systems [14] has figured out that involving local citizens' groups into programming, planning and implementing the network of sustainable urban and peri-urban recreation is a successful practice that has been successfully tested and is being gradually implemented in Vilnius City.

In Lithuania, the Guidelines for society involvement in the territorial planning process [17] puts the emphasis on the formal procedures content of which is very poorly revealed, and therefore public involvement in the urban planning processes is formal and inefficient. Therefore it does not contribute either to quality of planning projects or to higher satisfaction of residents concerning the planned development programs. The long list and the impressive scale of the actions of social dissatisfaction organised by Vilnius citizens on different construction projects is a good proof for this statement.

II. TERRITORIAL IDENTIFICATION OF URBAN COMMUNITIES IN VILNIUS CITY

Different territorial levels of urban communities are identified in urban area. Two trends of analysis are possible, and the research will track both of them. Starting with a big scale and going to a small scale, the whole city as urban community could be identified in the region with its territory, boundaries and connecting links. In the case of Vilnius City, the city community is represented by a group of approximately 500.000 urban residents and of almost 80.000 suburban residents. They all are the people that associate their lives in different spheres with Vilnius City. Traditionally the municipal governance is implemented for this scale of a territory. Issues of urban policies and programs of a general type as housing, city economy, networks of infrastructure, waste disposal and some others are efficiently solved on the territorial level. The strategic, general and special plans of the City are formed on this level as well. Still closer look at the needs of local residents is gloomy and needs a more careful focus.

The second scale level down is the field of urban residents in the big parts of the city, or the so-called city districts. These areas were formed in the historical development of Vilnius City. Urban districts as the Old Town, the New Town, Užupis, Rasos, Šnipiškės, Žvėrynas and the others could be outlined. These areas are big in their territories (The Old Town (450 ha), Rasos (1270 ha), Šnipiškės (312 ha), New Town (480 ha), Žvėrynas (270 ha)) and in the number of their residents (the Old Town - 21.000, the New Town - 29.000, Rasos - 13.000, Šnipiškės - 20.000, Žvėrynas - 12.000). Territories of these urban districts are mainly identified by similar environment that is formed in Vilnius City. In this case, urban cultural landscape plays an essential role in appearance, existence and development of these communities. Certain forms of collective identity already exist and more detailed urban programs could be planned and successfully implemented in these districts. On the other hand, they are still quite big to establish and maintain strong social contacts between the residents.

The crucial factor, in this case, is a possibility to maintain direct neighbourhood connections between the residents, however, limited by a high number of people.

The third scale level down for urban community could be attributed to local territorial communities. In these areas the environmental factors strongly affect the identifying of the size and the boundaries of the territory that community residents are interested in. On this level the number of residents living in the given territory is relatively smaller and therefore stronger social contacts could be developed between their residents. On this level municipal programs get the most detailed planning and most careful implementation. Opinions and preferences of local residents could be collected with the highest efficiency as well as the monitoring programs could be successfully implemented. In the presented research these areas are named Local Urban Territorial Communities (LUTC).

The next scale level towards the smallest type of community could be attributed to local neighbourhoods, and the smallest one of them is a single family level. Local neighbourhoods identify themselves as an active part of LUTC with a fewer residents living in a relatively small territory, mainly one or several small urban structures or houses. This might be a local residential street, a housing block or even a single block of flats.

Local territorial urban communities are clearly visible in Vilnius City informally by identification real neighbourhood contacts maintained in the territory of their residing and also formally by establishing local administrative authorities for managing some local municipal programs as maintenance, security and others.

TABLE 1
FORMAL ADMINISTRATIVE SEGMENTATION OF LOCAL DISTRICTS (AUTHORITIES) IN VILNIUS CITY.

	City district (Seniūnija)	Area (km ²)	Number of residents
1.	Verkių	55,65	30 900
2.	Antakalnio	77,2	39 700
3.	Pašilaičių	8,2	25 700
4.	Fabijoniškių	4,1	36 600
5.	Pilaitės	13,8	16 000
6.	Justiniškių	2,98	31 000
7.	Viršuliškių	2,5	16 300
8.	Šeškinės	4,4	36 600
9.	Šnipiškių	3,12	19 300
10.	Žirmūnų	8,5	47 400
11.	Karoliniškių	4,0	31 200
12.	Žvėryno	2,7	12 200
13.	Grigiškių	7,1	12 000
14.	Lazdynų	10,3	32 200
15.	Vilkpėdės	10,3	24 700
16.	Naujamiesčio	4,8	27 900
17.	Senamiesčio	4,5	21 000
18.	Naujosios Vilnios	39,3	32 800
19.	Panerių	84,94	8 900
20.	Naujininkų	41,1	33 500
21.	Rasų	2112,7	13 100
	Total:		549 000

In Lithuania the formal way to determine whether individuals belong to public or private sectors is by juridical activity and civic relationships. Also, the territories that are influenced by those individuals are described by formal and administrative boundaries. “Historically a city is usually compared to a municipality (*commune, municipio, gemeente*) as an individual territorial unit which is made of citizens that nurture certain interests, populated centres with the organized construction, social services and its own authority. However, formal administration boundaries usually do not match to the informal areas in which community incentives and interests are strongly expressed.

American scientist [3] notes: ‘<...> the participation of citizens can help to implement programs, solutions to planning documents and organize actions pursuing for a leadership. Volunteerism decreases costs which help to achieve personal skills. Many great projects would have never been implemented without the help of communities’.

Activities of LUTC performed within their territories are usually informal. Therefore taking these issues into account, certain legislative initiatives could positively affect development of local community structures that seek for common benefits. That is why strengthening of local urban territorial communities is an important goal for achieving a better architecture and a higher quality of life in urban areas.

III. IDENTIFICATION OF URBAN TERRITORIAL COMMUNITIES IN THE STRUCTURE OF VILNIUS CITY

The past and present situation in Lithuania and in Vilnius City in particular could be described as the challenging crossroad where the medium-size block structure of the Old City stimulates community life and borderless soviet planning models neglect identity of local communities. The lack of experience in implementing the existing legislation as construction law and technical regulations, and the spreading culture of illegal construction leads to aggressive urbanization of valuable and environmentally and socially sensitive spaces.

Territory and its services are a consolidating element for local urban community. Initiatives of local urban territorial communities arise.

Model of the new residential districts of soviet period with 20.000, 25.000 or even 30.000 residents (Table 1) was selected for identification and legal establishment of local territorial communities and their authority. In the new residential districts, identification of territorial communities is a very complicated issue as the existing urban structure does not facilitate formation of local neighbourhoods and development of stronger social contacts for the big number of residents (see Figure 1).

This structure could and should be articulated to reach more local territorial identity for different local communities residing in these areas. One of the basic available tools would be application of the appropriate methods of landscape architecture to create smaller semi-private community spaces in these urban areas (Figure 2). Landscape is a strong motivating element for local communities; it directly influences life quality by organising leisure and recreation, as well as aesthetical image of the place.

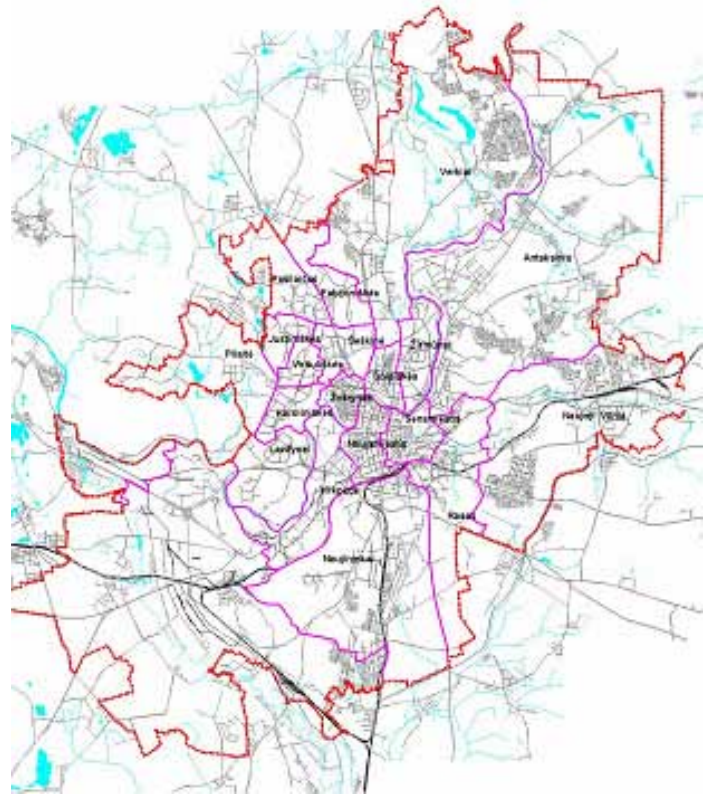


Fig. 1. Legal boundaries of local authorities in Vilnius City.

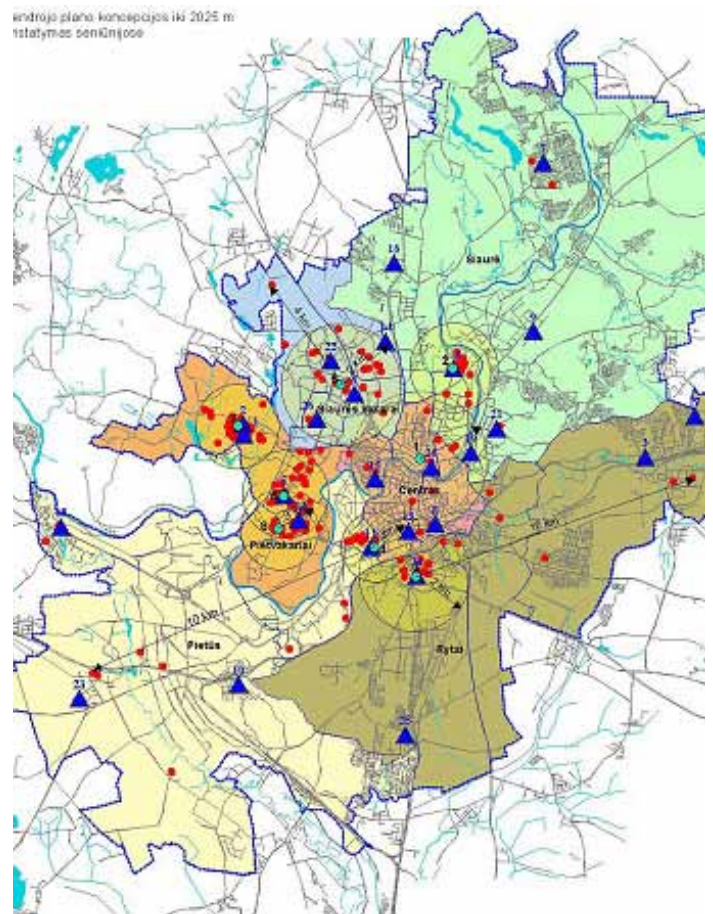


Fig. 2. Informal network of local urban territorial communities in different districts of Vilnius City.

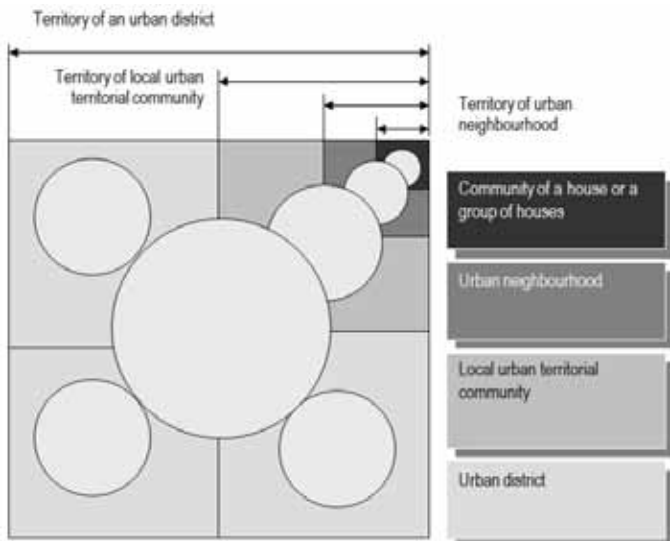


Fig. 3. Model of urban territorial communities.

	User Requirements				
Concept level	Integrated Building Performance				
	Environmental Performance	Social Performance	Economic Performance	Technical Performance	Functional Performance
Framework level	Integrated Assessment of Building Performance - General Framework (IG)				
	Framework for Environmental Performance (IG)	Framework for Social Performance	Framework for Economic Performance	Technical Characteristics	Functionality
WG2 level	Description of Building Life Cycle (WG2)				
Calculation methods for Building level	Assessment of Environmental Performance (WG1) Use of EPD (WG1)	Assessment of Social Performance	Assessment of Economic Performance		
Rules for Product level	Environmental Product Declarations (WG3) Generic Data	(?)	(?)		

Fig. 4. Standards supporting integrated building performance within TC 350 (CEN/TC350 [2]).

Local communities are also able to take over responsibility for the maintenance and protection of landscape resources, and thus to save some public funds. Local residents are strongly interested in establishing additional services in proximal landscapes as sports, bike rent, wellness and the others. In such a way, local elements of landscape could get a more sustainable state of existence by having a strongly motivated user behind.

The very same doubtful method applied to the new residential areas identified as the residential districts was implemented in the other parts of Vilnius City where urban communities had been settling and developing their local environment for a longer period of time. In the historical territories of Vilnius City (The Old Town, the New Town, Kalvariju, Rasos, Užupis, Žvėrynas), social interests of residents are much more clearly expressed in urban territory as common typology of the types of housing, landscape and recreation resources, networks of social services, available types of mobility, employment traditions.

Local urban territorial communities are powerful social organisms that are, on the one hand, formed under the influence

of the territory where they are settled and, on the other hand, are influencing or are able to influence the actual territory of their residence (Figure 3). Probability of appearance of *gated communities* and isolated neighbourhoods is the other danger to be avoided. Urban ghettos as districts for “the businessmen”, the “the rich people”, the immigrants or other excluded groups of citizens might be another margin of the process of creating a balanced urban community which has to be solved by integrated planning methods.

Three basic methodologies as complex evaluation toolkit are used worldwide for planning and evaluation of sustainable residential and public areas and facilities – the USA, the UK and the German systems. Quality of planned environment and created buildings is measured by the method of evaluating it to the basic topics and subtopics according to various household activities [1] as indicated in Figure 4. For example, BREEAM 2011 incorporates the majority of environmental performance indicators for evaluation of urban environment as regulated in European Commission standard CEN/TC 350.

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The basic interests that local urban communities have in the surrounding territory cover the areas of high quality residential environment and its architecture: proper spatial arrangement of the territory, well-developed services, including social services, equally distributed working places and good opportunities for employment and labour, easily accessible primary health care and child care, primary and secondary education, recreation and leisure, safety and security, maintenance of territories, equal opportunities for local mobility and some others.

By identification of these interests and more focused integration of them into the programs of urban development the city can get a lot of benefits. Firstly it gets the right information about the needs of local residents in a representative way. When programs of urban development are prepared based on that information, local residents usually approve them with pride, support their implementation, and take care of their protection and maintenance.

The other benefit lies in the possibility of providing supervision and maintenance rights and obligations of some landscape areas and facilities to local territorial communities. This would save considerable amount of municipal resources. The existing landscape resources could serve as an example. Local residents are very sensitive to all urban transformations that require modification of existing green spaces close to their residences. Some of these green spaces are poorly used and maintained; nevertheless they are very clearly related to urban recreation that could be developed in these landscape areas. An efficient way to shape these landscape areas and to keep them fit for a public use is to provide these green spaces for

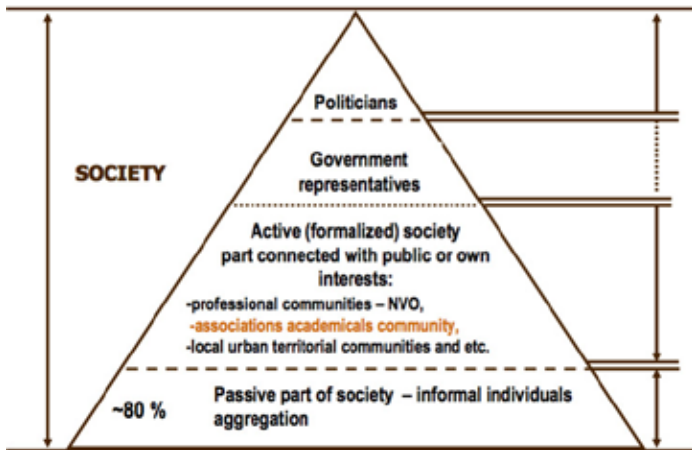


Fig. 5. Society spread model by the grade of activeness of the society.

the use of local territorial communities that would be fully authorised to decide on the way of their maintenance and utilisation, certainly with professional aid from the municipality. Professional landscape architects and planners should provide the local territorial groups with assistance on planning and design. In this way residents could decide about the types of services and activities that they and their families would like to appear in these areas. It is also very probable that these local territorial groups will take over full responsibility for protecting, maintenance and further development of these landscape areas. In this way the growth of citizen communication and civic society will be facilitated, and local municipal authorities will get a higher level of satisfaction from the residents.

According to investigations about the attitude of the inhabitants to the development of their native town, the interaction of the dynamic (people, communities) and the static (buildings, spaces, landscape elements, infrastructure) factors is of particular importance because the informal impact helps reflect visual, emotional and functional meaning and its territorial expression in urban structure. Moreover, it would allow for the residents to see the values of their town and appreciate their participation in its architectural development. Based on the survey conducted by the authors of this paper, this would be a potential area of activities for mobilising recently passive Vilnius citizens (Table 1), whereas about 55 % – 77 % of Vilnius citizens are willing to participate in different ways in urban development process of their native city.

IV. INTERACTION BETWEEN GREEN SPACES AND LOCAL COMMUNITIES SYSTEMS

The research will be sustained in a way outlined in this article and will be extended into practical testing phases involving as many local urban territorial communities as many are willing to participate. However, in practice it is important for specialists in sustainable formation of residential environment to understand desires of society and various interest groups (Figure 5) and its interpretations of residential environmental quality indicators.

Research on city landscape and anthropogenic effect reveals that in Lithuania tension between environmental protection specialists and city developers evolves due to conception of juridical terminology by lawmakers. That happens because

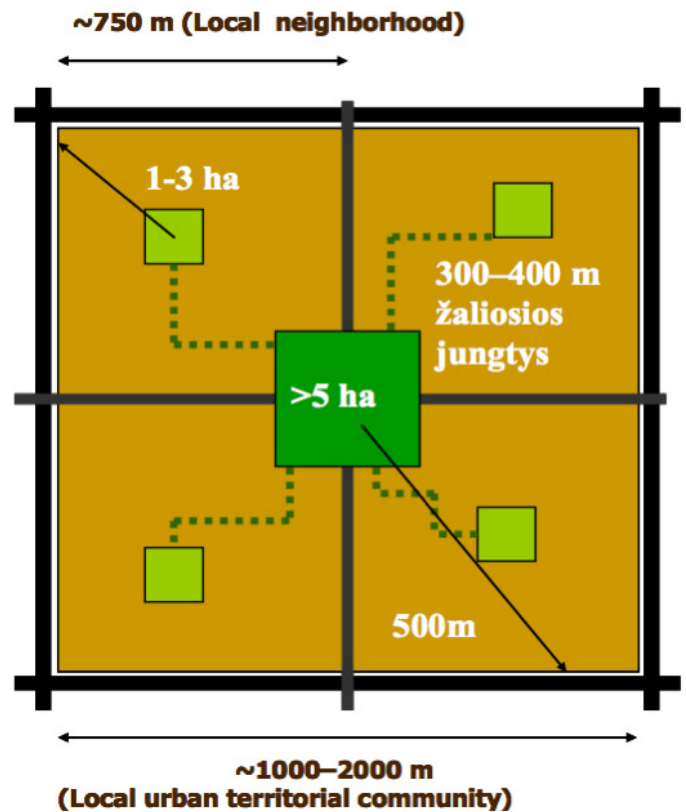


Fig. 6. Environmental aspect (green spaces management system) (by Dringelis. 2002).

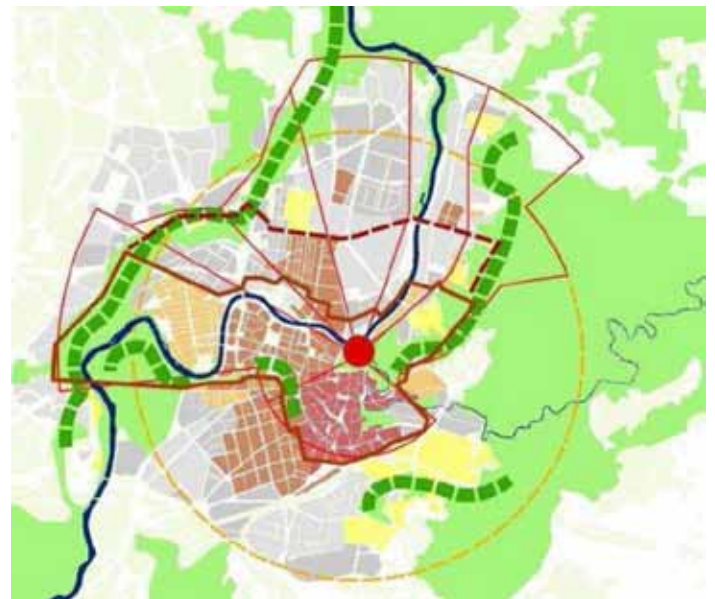


Fig. 7. Urban – architectural structure– variety constructed by different principles city structural parts in the background of green Neris (down hills Senamiestis, lower terrace of Naujamiestis, Žvėrynas, historical suburbs) [16].

landscape research in Lithuania still does not have sufficient theoretical and juridical basis. Usually in the territory planning documents, the landscape research integrates separate parts of natural environment and architectural urban research, including engineering, social, economic and greeneries topics.

That corresponds to European Union standardized system of sustainable development in construction area principles. With the increase of cities influence on environment, in Lithuania



Fig. 8. Architecture of the XIX-th century in the city maturity and the neighbouring territory can be described as an element of the city individuality [16].

contrary to EU disintegrated conception of urbanized and non-urbanized, natural and anthropogenic development of territories was formed and differences in research about natural territories, geography and ecology has become bigger. New sectoral anthropogenic and natural territories research models were created. One of them is conception of natural framework.

Natural framework conception raises an issue in concept polysemy. In urban theory, a natural framework model of urban territories differs from the protected areas law in the Lithuanian model. The model is defined as a compensation of ecological nature function possibilities (restoration of natural complex and its components to sustain ecological stability, preserve ecosystem, etc.). In the theory of city development [15], city natural framework is understood and used by describing city spatial planning composition. Natural framework is understood as compositionally important centres (public spaces) and axis territorial combination. It is the basis of hierarchy in natural urban structure that influences city spatial planning composition and landscape (Figure 6) and is correlated with the system of territorial communities (Figure 3). In this model, natural framework consists of big landscape structures: water pools, their valleys with steep downhill, relief with hills, big greeneries that form city planned structure, urban morphology and general city spatial composition that identifies particular city (Figure 7 and 8). Vilnius City general plan (GP), like in most Lithuanian cities, GP greeneries systems with their connections and functions are also elements of natural framework. However, their form, interdependence and relations with urban structures (territorial communities) (Figure 3 and 6) and their merge into natural framework are a creative product of society (dynamical factor).

Interaction between landscape elements (static factor) and society is a creative process, and its result is a well-formed logical idea between various territories and natural components. Therefore protection of natural framework becomes abstract and indeterminate. However, a model of individual behaviour (education of society, sense of community, encouraging volunteering to create public goods, education of specialists) is more important [8] for natural framework to protect, form, allow trees to grow, maintain greeneries so that they could amortize negative anthropogenic influence.

To achieve these goals, we need ideas on how to solve land use (consolidation) issues, form greeneries in the designed areas, properly use and take care of public areas. That is the most complex problem and a solution is related to landscape architecture by appreciating the European idea of high quality lifestyle, society democratization, municipal economy and infrastructure (engineering and social) development and modernization of dwellings in order to use power resources more efficiently.

CONCLUSIONS

Social contacts and direct intercommunication are higher in informal territorial communities compared to formal administratively subdivided areas. To get a higher level of satisfaction and efficiency, all municipal urban policies and programs (landscape, mobility, social services, recreation) should be initiated, prepared and executed by direct involvement of local territorial communities.

Landscape development plans in urban areas should be prepared, discussed and approved by local territorial communities from the earliest phases of the project concept.

In order to make the municipal urban development more efficient and transparent, local urban communities should be the important players in the process. Matching the areas of formal local authorities according to the territories of identified local territorial communities could strongly facilitate this process.

Landscape is another strong tool for creating identity of local territorial communities. Planning and design projects should strive to emphasise the areas and the specific features of different communities in the city;

Public goods democratically created by individuals and nature are valuable scientific and art natural objects that are available in the society (territorial communities) which is trying to achieve sustainable environment;

Good city landscape as interaction arena for individuals and nature is determined by the use of integrated principles in new constructions and modernization of existing environment.

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