

Study of Harmony in the Indoor / Outdoor Context of Architecture from G. Birkerts at the new building National Library of Latvia

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Abstract. Today, built in the period from 1989-2014, the building of the National Library of Latvia in the center of Riga, on the Daugava's left bank is a vivid and highlighted example of integration of architecture, interior and landscape architecture as one wholeness. Tracking its author's G. Birkerts used general principles in architecture, the masterful use of light, it must be concluded that in order to foster maximum indoor/outdoor space harmony of the art of the environmental design, in starting design work it is necessary to define the primary aim and assignments to achieve it in the long-term perspective, with alternative material secondary aims, assignments and resources. Subordination has a key role in the achievement of harmony in the art of the environmental building. Here, high goals, defined twenty-five years ago, meet with corresponding results today, they have passed the test of time and recognizable as being ahead of time. The findings obtained supplement the earlier ones with regard to other functionally dissimilar structures in nature. By the inductive method, it is likely to gain approval to the hypothesis that the quality of mutual harmony of any space, directly proportional depends on the subordination of the goals and conformity of the results obtained. By the change of the settings of the target program in the art of the environmental building, not only the result is changing but also the means to achieve them. If the result and means are not up to the aims set, disharmony of the architectural environment and the indoor/outdoor space proportional to the discrepancy is created. The higher the correlation between the aims and the result in the art of the environmental development, the higher the level of achievement of harmony. The greater the gap between them, the greater disharmony is expected.

Keywords: architecture, interior, indoor/outdoor harmony, glass systems.

Introduction

Looking at the joint performance of the contemporary Latvian environmental builders (architects, interior decorators, landscape architects, designers and other specialists), there is a reflection of what in each case has been the main aim unifying the specialists, creating this or a different environmental site, whether the aims of public facilities reach high and ahead of time spiritual and material benefits or barely meet the desperate self-assertion of an eccentric environmental builder, financial and the economic considerations of a narrow group, the customary incapacity? Architect J. Dripe writes, "The mission of good architecture is to enhance the benefits of society, to move and to inspire [6]." The contemporary Latvia's landscape surroundings are rich with excellent and internationally highly valued examples of architecture in the field of the outdoor/indoor communication. However, in parallel with them, a series of sites have been created where this factor has been ignored in general or still there is not utilized the knowledge and opportunities that give the contemporary outdoor/indoor space communication, especially through the glazed plane. Architects, artists and scientists of all times have been looking for the key of harmony, trying to use it as precisely as possible [13, 15]. In creating

spaces, the basis of making a harmonious environment is a synthesis of arts [21]. What are the examples of successful collaborative principles and conditions in the field of the interspace communication today? Which would be raised as a priority, which as subordinated?

Based on the previous findings, obtained in my research on the indoor/outdoor space harmonious development opportunities in the art of the environmental building [2, 10, 11], there is a logical need to continue research in the direction started, looking for answers to the opportunities for harmonious development of the interspace (in the indoor/outdoor environmental art).

One of the most significant projects of the 21st century in the Baltic States is the National Library of Latvia, which has made it possible for the existing library to become a modern world-class information and cultural center. The building is designed by the Latvian origin architect G. Birkerts from the USA, an internationally acclaimed virtuoso of light, the author of a number of distinguished libraries, in collaboration with famous Latvian architects - Modris Ģelzis and his colleagues [4, 12, 19]. In 1989, architect G. Birkerts draws the first sketches of the library building [8]. Later, thanks to

the popularity of the architect and the work of his biographers, the sketch has been placed in many magazines, causing an international interest [16].

Project's autor architect G. Birkerts have made the following comments:

"This architectural idea of the National Library of Latvia appeared 20 years ago and turned into one of the widely recognised harbingers of the new age in architecture. The British historian of architecture Peter Buchanam has said that the architecture of a nascent age should "surpass and contain ". The new should be created by absorbing and synthesising teachings of both historical and local, as well as the contemporary architecture. It leads to the thought that contemporary architecture should be like a bridge crossing the borders of time – rooted in the past, looking towards the future. The need appears to create a new language of form, a language that would treat the previous ones with respect. Looking at the building we see an intriguing form. It is visually attractive to us. What is it like? It is expressive. It is a library, a functional symbol. It is a reminder of an outstanding historical event, important for Latvia, the making of its statehood, as well as praise to the rebirth of the state and its renewed collections of cultural treasures. The linear nature of words fail to describe fully the three dimensional architectural shapes. As to the expressivity the form has many meanings. To perceive its meaning, we have to return to the feelings and intuition that accompanied the moment of creation. This architecture tells about the merging of humanism and culture, it carries references to history, folklore, literature, music and visual art. Moreover, it expresses the architect's love of his land and its history.

It tells of green fields and meadows, of many-coloured flowers;

It tells of dark pine forests and white birch groves;

It tells of slowly flowing, dark, dreamy rivers, their streams are so slow, that at times it seems that they are flowing backwards;

The landscape is flat and slightly sloping, its highest mountain – Gaiziņš, is only 12 metres higher than the Eiffel Tower;

It tells of the ever present folklore, of the human emotions expressed in the folk songs and legends. Legends of the determination that will make a brilliant castle rise up from the dark waters.

It tells of the courageous riders riding up the mountain of ice to save the princess. It takes a strong will and persistence to accomplish it. Turning to the influences upon the form of the building, we recognise the architecture of rural farmsteads, with layers of Riga's historical architectural manifestations over it.

All these metaphors have contributed to the sketch of the contemporary library shape. This new shape carries individuality and power to engage in a dialogue with the historical architecture on the

opposite bank of the Daugava. I call this synthesis of the metaphors soul; it creates the expressivity of the external appearance of the new National Library of Latvia building. And then there is the soul, which is reflected in the interior"[3].

In August 2014, the building of the National Library of Latvia and its adjacent territory is fully open and available to visitors [8].

Purpose of study: to find out whether the interspace harmony principles obtained in the previous phases of the study and their priorities in the architecture of educational establishments, sacred buildings and functionally transformed, renovated buildings [2, 10, 11] apply also to other functionally different buildings, in this case the library, in the art of the environmental building as well as generalized with the inductive reasoning (cognition from the individual case to the general statement) method [17].

Hypothesis – the quality of the mutual harmony of any room is directly proportional to the subordination of the set aims and the conformity of the results obtained. So, for instance, the indoor/outdoor space harmony of the library building can be achieved by placing as a priority the presence of natural light indoors and the presence of subordinated second plane picturesque scenic space from the interior looking through a glazed plane into the outdoor space. If the priorities are swapped, as a priority would become the presence of a picturesque scenic space from the interior looking through a glazed plane into the outdoor space that would leave a negative impact on the quality of the work of the visitors at the library or the main function of the building. An excellent example of this is the new building of the National Library of Latvia in Riga. By the change of the settings of the target program in the art of the environmental building, not only the result is changing, but also the means to achieve them. If the result and the means are not up to the aims set, disharmony of the indoor/outdoor space is created in the proportion to the discrepancy. The higher the correlation between the targets and the result in the art of the environmental building, the higher the level of achievement of harmony. The greater the gap between them, the more disharmony is expected.

Assignments:

- To study and analyse factors of harmony in the indoor/outdoor interaction in the new building of the National Library of Latvia at 3 Mukusalas St., Riga.
- To determine priorities of the indoor/outdoor harmony, to compare the results with the obtained in the previous studies and to define the general conclusions.

Materials and Methods

The article summarises a general review of a subject studied very little until now. Not only one alone library has been built in different Latvian cities over the last twenty years. In 2004, the main building of the library in Ventspils has been rebuilt under the project of “Architect J. Poga Office” and the interior designed by V. Terbets. In the harmonious ensemble, there is integrated the new, glazed one and the old, rebuilt parts of the building which through the glazed planes and the horizontal wooden blinds today actively presents the library indoor space in the environment of Old Riga. But in 2009, the library of Pārventa was built in organic forms, the authors of which are the group “India” architects P. Bajārs, I. Kalvāns, R. Jansons, I. Baumanē, D. Sotņikova, I. Ļūle and the interior decorator A. Ķibilde. A modern vivid example of success and mastery, in the priorities of which in the created outdoor /indoor space communication, there might be dragged some parallels with the new building of the National Library of Latvia – a delicate openness to the urban environment subordinated to strong skylight through delicate glazed planes. For obtaining the results of the study as **the material** has been selected and surveyed from 1989 to 2014 designed and built new building of the National Library of Latvia in Riga, which itself is so unique site that at the scale of Latvia between the structures of analog nature, it has no equivalent player, which could be comparable with other ones in one weight category. The building is characterized by a distinctive, expressive architecture, appropriate indoor space, landscaped area around it and the surrounding landscape of the urban regeneration.

The present outline of materials uses general principles of methodology in researching buildings developed by architect Jurijs Vasiļjevs, founder of Latvian modern architectural history school: detailed summary of basic information provided by written sources and the very physical object [5, 15].

As the main method for studying of architecture, landscape architecture and interiors was the comparative method that expresses as informative, archival, interview and photo analysis. While inspecting the object in nature (October, 2014), photo images of architecture and interior were made with digital camera Sony X Peria C6603. Stylistic features of building architecture and interior (composition, coloristics, proportions – massiveness, filigreeing, glazing fields, level of emotionality), harmony in mutual interaction of landscape, architecture and interior were analyzed.

Application of the comparative method for drawing the information summary for the research:

1. Principles of applying glass systems in architecture:

- Composition of glazed areas in space and their proportions, i.e. massiveness in relation to unglazed parts;
- Compositional application of coloristic and light/shadow under the impact of insolation;
- Assessment of semantic correspondence and level of emotionality of indoor/outdoor space in relation to the highest functional task of the space.

2. Outline of research materials in reference to the impact of compositional arrangement of outdoor space on the indoor space and vice versa:

- Architectural form building, glazing and outdoor landscape of the building as the main criteria for the search of harmony between building architecture and landscape architecture thus finding compliance with their highest task;
- Assessment of indoor/outdoor harmony: summary of views expressed experts and other respondents on correspondence of indoor/outdoor dialogue to the highest task of architecture.

During inspection of the building, architecture, landscape and interiors were photographed.

With the help of inductive reasoning method (from an individual case to general statements) the priority factors for assessing visual aesthetic quality of indoor/outdoor space were determined in the analytical generalisation stage. It was performed by inspecting the buildings in Latvia and trying to find out the general principles for setting the main criteria of indoor/outdoor harmony studies.

Results and Discussion

1. Principles of applying glass systems in architecture:

- Composition of glazed areas in space and their proportions, i.e., massiveness in relation to unglazed parts:

Despite the impressive space of the building and the peculiar silhouette, it leaves a slightly illusory overall impression thanks to the non-translucent frosted glass used in the facade finishes, which is rhythmically alternating with vertical translucent glass window openings.

NNL new building – the technical parameters:

- Total area of the building – 40,455 m²;
- Built-up area – 8,590 m²;
- Height – 68 m;
- Building space – 263,00m³;
- Number of floors – 13.

The building of the library is divided into five major areas: the public (23 % of the total area of the



Fig. 1. View on the NLL new building entrance
[Source: photo by author private archive, 2014]



Fig. 2. A view of the NLL. The upstairs crown portion of the interior
[Source: photo by author private archive, 2014]



Fig. 3. A view of the NLL. A fragment of the light lock of the interior
[Source: photo by author private archive, 2014]

building), the reader (27 %), the employee (18 %), the repository (12 %) and the technical zone, including the vertical communications (20 %) [20].

The entrance motive “At the Foothill of the Glass Hill” is addressed in transparent glass as the opening of the cave at the foot of the cliff, which enables the library visitors from outdoor space to go indoors gradually in the emotional way (Fig. 1). All the library services are available to people with physical disabilities, specially equipped places for people with visual impairments. It has:

- Reading spots – 1000;
- Daily accommodate for around 3 000 visitors;
- The conference and concert hall with 462 seats;
- 10 different group instruction rooms (6–16 people);
- The number of the employees around – 400 [18].

The view on Old Riga is followed through the glass planes, entering the library and a little more is visible in the hall on the 1st floor, gradually fading in front of other priorities (Fig. 5). The entrance through the outdoor/indoor space linking is resolved visually smoothly. By contrast, the transparent glass horizontal insertions in the inclined planes of the building interspersed with frosted bands, give an intense skylight to the interiors of the reading rooms that provides a perfect natural light for the readers. The presence of the landscape of the urban planning at both ends of the building plan is replaced by the color-changing sky and contributes to the necessary focus on intellectual work. The new building can store 6 million printed publications, 350000 printed publications are placed for free access and use [18]. A more powerful source of light in the interior opens through the peak of the volume of the building itself - the crowning finish is resolved in transparent glass in the roof ridge of the building, through the internal atrium in the interior flooding a strong daylight flow (Fig. 5). The application of special, multi-tiered decorative shields organizes and intensifies the light direction, simultaneously making it velvety unobtrusive (Fig. 2; 3; 4). Proportionally assessing in square meters, the transparent glazed part of the façades and the roof of the building takes up a much smaller part than the closed, non-transparent one (Fig. 11–15). A masterful application of the transparent planes complemented with the artificial lighting makes the indoor space look light, bright and so very pleasant to mental work that you want to stay here as long as possible. Through the inclined glass planes in the roof of the building, the sky can be viewed and the white daylight flows into the indoor space, associatively recalling a hole in the rock peak, looking from a dark cave up (Fig. 2; 3; 4). The picturesque view through the vertical window aisles to Old Riga occupies a subordinate position in relation to the skylight flow (Fig. 6). The buffer zone of the Daugava River

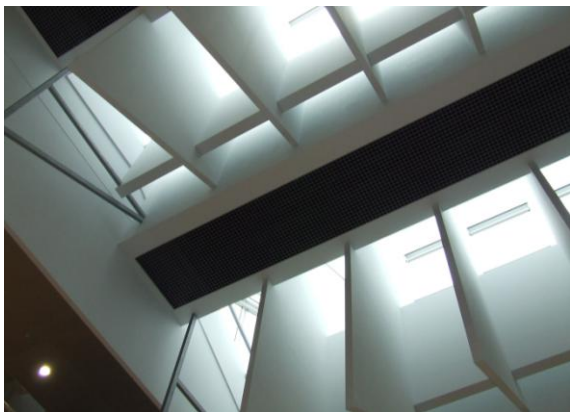


Fig. 4. The NLL. The skylight detail fragment
[Source: photo by author private archive, 2014]

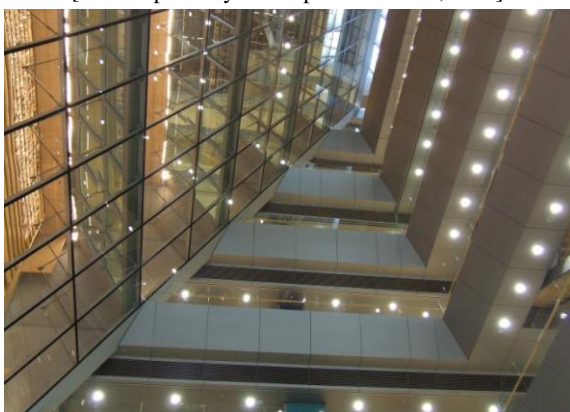


Fig. 5. A view of the NLL interior. The hall with the atrium
[Source: photo by author private archive, 2014]

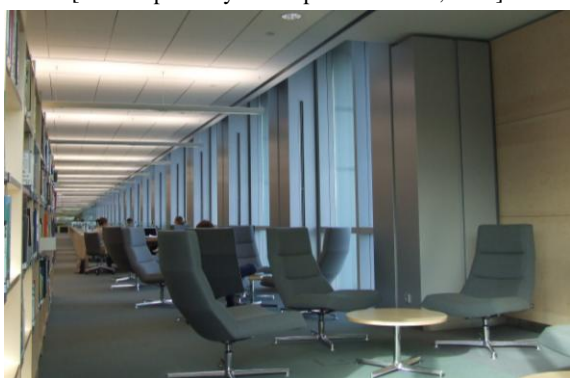


Fig. 6. The NLL. The interior of the reading room on the 2nd floor [Source: photo by author private archive, 2014]



Fig. 7. A view on Riga through the window of the reading room on the 8th floor
[Source: photo by author private archive, 2014]

watercourse protects the indoor space from the urban rush and obtrusion. This landscape quietly and serenely as the river itself glides along the glazed library reading room windows, calling one if the attention is turned to it. It gently accompanies visitors on each floor, allowing you to enjoy the scenic diversity, but climbing the stairs there is a saturated dynamics of the viewpoints along the vertical (Fig. 7; 8; 9).

▪ *Compositional application of coloristic and light/ shadow under the impact of insolation:*

The interior of the building as the facades are resolved in Nordic grayish tinge shades, which, thanks to the diversity of materials used and the mutual dialogue, create a slight light and shadow game. The matte light absorbing materials as the grayish carpets in light tonal shades, the light color Latvian birch and Canadian maple wooden floor covers and the wall paneling make up a subdued absorbing background for the polished floor tiles brightly shining thanks to the sunlight and artificial lighting in the hall on the 1st floor, as well as for the planes made of polished glass and sheet metal shimmering in the play of light (Fig. 5; 10). Through the indoor atrium, the light and shadow game accents are easily flowing through the floors, creating a mutual dialogue. So, for instance, the dark gray matt/polished floor cover made in the Latvian ornamental pattern on the 1st floor with its cooling presence and radiance balances the interior of the building up to the upper floors. In the colors of the interior of the building, the Latvian currency – the Lat is immortalized, which is removed from circulation after the introduction of the Euro and which has become a mere historical relic [9]. As far as possible, in all works, materials manufactured in Latvia have been used, such as building fixtures, ready-mixed concrete, mortar, glass packets, etc. [19].

▪ *Assessment of semantic correspondence and level of emotionality of indoor/outdoor space in relation to the highest functional task of the space:*

The building's silhouette, scale, details, the color solution and the use of materials bring the semantics of the "Palace of Light" and the "Glass Hill" of the Latvian people's spiritual heritage [6]. Symbolically, this "Glass or Crystal Hill" and efforts made to reach its peak, point to the difficult path of knowledge acquisition, at the same time through the semantics of the material, stressing its great value for a small nation and the national well-being (Fig. 1).

2. Outline of research materials in reference to the impact of compositional arrangement of outdoor space on the indoor space and vice versa:

▪ *Architectural form building, glazing and outdoor landscape of the building as the main criteria for the search of harmony between building*



Fig. 8. A view from the glazed interior partition wall, the reading room and the facade glazing on the Riga Railroad bridge, when climbing the NLL central staircase in the atrium part [Source: photo by author private archive, 2014]



Fig. 9. A view from the public area on the adjacent to the library, greened left bank of the Daugava River in the close-up and Old Riga in the further plan [Source: photo by author private archive, 2014]

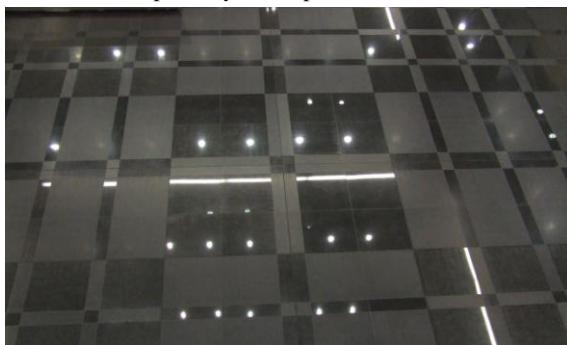


Fig. 10. The NLL floor tile cover in the hall on the 1st floor [Source: photo by author private archive, 2014]



Fig. 11. A view of the NLL building from the side of the Daugava River [Source: photo from author private archive, 2014]

architecture and landscape architecture thus finding compliance with their highest task:

The image of the library building is bizarre, semantically precise, powerful and, at the same time, a harmonious accent in the urban environment of Riga, in particular noting the fact that this accent as a dominant is apparent from all major traffic and pedestrian arteries, encouraging the idea of the importance of modern dominants in the functional decentralization of the city. In balanced doses, the pulsating landscape of Riga participates in the specific rhythm of the library's indoor space, not mixing it, but supplementing it with a rhythm, remote silhouettes of Old Riga, the noises of the working day in the furthest planes of the views and the natural beauty the close-up planes. Flower... in the future! Thanks to the plantations of the left bank of the Daugava River, which change their color scheme through the seasons, the constant change of the natural landscape flows into the library's interior. By contrast, the urban environment has gained not only a new silhouette, expressed in the volume of the building. Through the regularly located glass planes, the interiors of the library's reading rooms delicately reveal their intellectual spirit (Fig. 11 – 15). During the daylight hours, the precise linking of the artificial lighting with the placement of the windows is more displayed, but in the dark hours of the day the indoor life takes an active participation in the outdoor space. All of the outdoor/indoor interaction factors together form an environment that eminently achieves the functional and the emotional aim of the library.

▪ *Assessment of indoor/outdoor harmony: summary of views expressed experts and other respondents on correspondence of indoor/outdoor dialogue to the highest task of the architecture:*

The social activity in both the professional (expert) and non-professional (user) circles in relation to this site is very high, as shown by the number of records to be measured in many thousands, for instance, on the websites of *facebook.com*, *twitter.com*, *draugiem.lv*, etc. Overall, the Latvian society is proud of this site and it is happy for the opportunities it provides. However, not everyone has a positive attitude. It is heard that some professional architects feel ashamed of the existence of such a monster in Riga. Not all foreign tourists know and understand the meaning of the Latvian folk symbolism contained in the form of the building and which is sinking today beneath the thick layer of the dust of Riga. In some cases, the site is viewed with irony. Not everyone is aware that Nanotech coating has been engineered for the library facades to protect them from dust, but for economic reasons or due to the failure of responsible persons to understand the significance of the proportions of



Fig. 12. View on the NLL
[Source: photo by author private archive, 2014]



Fig. 13. View on the indoor from outdoor NLL
[Source: photo by author private archive, 2014]



Fig. 14. A view on the NLL indoor from outdoor
[Source: photo by author private archive, 2014]



Fig. 15. A view on the NLL indoor from outdoor
[Source: photo from author private archive, 2014]

the means and the results, it is not yet applied. Not everyone knows that this issue of the care of the facade is on the agenda and hopefully the Castle of Light will soon be lit up in the envisaged splendor.

“The tonal discipline and elegant simplicity”, that’s the rating of architect Jānis Dripe for the building of the National Library of Latvia [7]. A huge glass partition wall in the interior physically separates, but visually merges the repository, reader and public space areas. The strongly dominant gray matt tonality of the wall planes is continued by matte metal load-bearing structures and the respective coloristic frames of the glazed planes. Also, in the floor cover planes dominates the gray gamut with discrete red, blue, green and violet impurity. A modest coziness to the finishing of the public space is given by the widely used Latvian birch wood paneling and the technical and communication space blocks in the zone of the public space. This tonality is completed by the floor finish made from the Canadian maple wood in slightly warmer shades (with high persistence indicators) and the ceiling finishing with perforated veneer planes in the communication zones. The semantically airy overview of the interior is stressed by the stainless steel skirting and the wooden paneling splitter bar. The solution stems from the author’s intention to create an environment, which in the cognitive process serves as a subordinate architectural background for 350000 printed publications. The principles of the illumination of the office space reveal Birkert’s high mastery in the use of light in architecture. In the space “the leading glazed zone enters light in the upper part of the space, but the lower glazed zone provides a direct solar radiation damping and visual extension of the workspace”. The atrium’s skylight solution is as a crowning touch to the launched theme of the tonal solutions and light in the interior. “The light splitting planes continue the theme of the demure gray-white tonality”, says J. Dripe [7]. The sloping roof planes in contact with the horizontal floor plane of the reading room zone create a light, airy space illusion that an articulated use of the skylight and finishing panels is achieved. The sloping plane of the ceiling in the reading rooms and the vertical glazed planes of the facade give an extra light and openness of the space on the views of Old Riga and the Daugava River in the foreground [7].

The National Library of Latvia is a special structure in the history of Latvia, in the silhouette of the capital city bringing in a strong contrast. Dr. arch. Jānis Lejnieks writes, “It is the only one at Pārdaugava that talks to Old Riga as with an equal partner [16].” Due to the specific, previously unseen construction volume of this building, it has even led to a certain confusion in the professional circles accustomed to vertical dominants of a different

proportions in the landscape of Riga. Critics have attacked both the building's silhouette and the insufficient transparency. As in the analog situation forty years ago, the leading architectural critic of those times, Candidate of Sciences and Assistant Professor Ivars Strautmanis has written, "Part of the adaptation cycle must also be undertaken by the viewers. The most important thing is to get used to, get into [16]." The world famous Eiffel Tower in Paris, the importance of which today would be hard to question and Le Corbusier's chapel in Ronshan, and a number of other outstanding architectural sites within their benefices have caused a huge public turmoil and even cleavage. The glazed parts of the volume of the library building are not made transparent in the traditional sense, thus protecting the building from the excessive exposure to sunlight. The special double-glazed units used in the façades do not reflect, but change the hue, depending on the ongoing processes in the outdoor space. Each of the building's facades change color tints and halftones differently depending on the season and the angle of incidence of the sun's rays [16].

In the vision of Mg. arch. in landscape architecture L. Balode, the majesty and spatiality are revealed, which is visible in the distant perspective from the windows of the building of the National Library of Latvia, it attracts, causes not only one library visitor to stop and view the landscape [1]. This dialogue is emotionally very strong. Not only the panoramic

view of the city are visible from the window in the background and the blue water landscape attract, but also the close-up /down view at the main entrance of the building, depicted in small details, objects of art and the wide lawn [1].

Conclusions

1. The new NLL building is considered as a brilliant and subtle example of the architecture of the outdoor/indoor space harmony, a successful result of interdisciplinary cooperation of the environmental builders. Here, high goals, defined twenty-five years ago, meet with corresponding results today, they have passed the test of time and recognizable as being ahead of time.
2. The conclusions obtained in the previous studies on the interspace priorities of harmony in other, functional different sites, are also confirmed by the harmony study of the outdoor /indoor space in the new building of the NLL. In order to come closer to the harmony of the maximum indoor/outdoor space in the art of the environmental building, it is necessary to start designing works, potentially far better looking in the long-term perspective, to define the primary aim and assignments to achieve it together with the subordinated secondary aims and assignments. Subordination has a key role in the achievement of harmony.

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Kopsavilkums. Arhitekti, interjeristi, mākslinieki, zinātnieki un citi vides veidotāji allaž ir centušies pieslīpēt harmonijas atslēgas atbilstoši sava laikmeta sasniegtajiem un nākotnē sagaidāmajiem rezultātiem. Mainoties objektīviem un subjektīviem apstākļiem, rodas nepieciešamība atkal no jauna rast harmoniju mūsdienu urbānās vides izaicinājumu priekšā, kad iekštelpa un ārtelpa viegli saplūst viena otrā, pateicoties lielo stikloto plakņu pielietojumam arhitektūrā. Balstoties uz iepriekšējiem secinājumiem, kas iegūti manos pētījumos par iekštelpas/ārtelpas harmonijas attīstības iespējām vides veidošanas mākslā, radās likumsakarīga nepieciešamība turpināt pētījumus aizsāktajā virzienā, kas meklētu atbildes uz starptelpu harmonijas attīstības iespējām mūsdienās. Laikā no 1989. – 2014. gadam tapusi Latvijas Nacionālās bibliotēkas ēka Rīgas centrā Daugavas kreisā krastā šodien ir spilgts un pārliecinošs arhitektūras, ainavu arhitektūras un interjeru savstarpējās integrācijas piemērs harmoniskas vides veidošanas mākslā mūsdienu urbānās pilsētvides komplicētajos apstākļos Latvijā. Šīs ēkas arhitektūras, interjeru un ainavu arhitektūras savstarpējā dialoga studija lieliski kalpoja kā harmonijas aspekta izpētes materiāls vides veidošanas mākslā šī pētījuma ietvaros. Kā metodes tika lietotas ēkas un to aptverošās pilsētvidnieciskās ainavas apsekošana dabā 2014. gada oktobrī, fotofiksācija, arhivārā metode, eksperu viedokļu apkopojums un analīze. Ar salīdzinošo metodi, kas izpaužas kā informatīvā tika analizēta objekta nozīme urbānajā pilsētvidnieciskajā ainavtelpā un tās rezonanse ēkas interjeros, stikloto plakņu pielietojuma principi arhitektūrā, stiklojuma laukumu kompozīcija telpā un proporcijas - masivitāte attiecībā pret nestikloto daļu, koloristika telpā caur gaismēnu spēli saules ietekmē. Tika veikta gaismēnu spēles radīto vizuālo akcentu analīze, ārtelpas/ iekštelpas semantiskās atbilstības un emocionalitātes pakāpes analīze bibliotēkas telpas funkcionālajam virszudējumam. Visbeidzot ar induktīvo metodi tika iegūti kopējie secinājumi harmoniskas vides veidošanas mākslā. Izpētot tās autora G. Birkerta pielietotos paņēmienus šīs ēkas arhitektūras ārtelpas/iekštelpas (starpelpu) dialoga veicināšanas jomā, īpašu uzmanību veltot gaismas izmantojumam, tika iegūti hipotēzi apstiprinoši secinājumi. Tie apliecināja, ka lai maksimāli pietuvotos iekštelpas/ārtelpas harmonijai vides veidošanas mākslā, nepieciešams, uzsākot projektēšanas darbus, iespējami precīzāk, raugoties ilgtermiņā, definēt primāro garīgo mērķi un uzdevumus tā sasniegšanai, kam pakārtoti materiāli sekundārie mērķi, uzdevumi un līdzekļi. Subordinācijai ir izšķirošā loma harmoniskas vides veidošanas mākslā. Konkrētajā piemērā pirms divdesmit pieciem gadiem augsti definēti mērķi šodien satiekas ar attiecīgi realizētiem rezultātiem, tie izturējuši laika pārbaudi un atzīstami par pārlaicīgiem. Šajā pētījumā iegūtie secinājumi apstiprina iepriekšējos pētījumos iegūtos secinājumus attiecībā uz citām funkcionāli atšķirīgas rakstura būvēm. Pielietojot induktīvo metodi apstiprinājās pētījumam izvirzītā hipotēze, ka jebkuru telpu savstarpējās harmonijas kvalitāte ir tieši proporcionāli atkarīga no izvirzīto mērķu subordinācijas un iegūto rezultātu atbilstības tai. Tā, piemēram, ārtelpas/iekštelpas harmonija jaunajā Latvijas Nacionālās bibliotēkas ēkā Rīgā sasniegta par prioritāti izvirzot dabiskas gaismas klātbūtni iekštelpās un tai pakārtotu otrā plānā gleznainu ainavtelpu no interjera raugoties caur stiklotu plakni ārtelpā. Ja prioritātes būtu apmainītas vietām, dominējoša kļūtu brīnišķīgas ainavas vizuāli emocionāla klātbūtne interjerā, kas atstātu negatīvu iespaidu uz bibliotēkas apmeklētāju darba kvalitāti jeb ēkas galveno funkciju. Mainoties mērķu programmas uzstādījumiem vides veidošanas mākslā, mainās ne tikai rezultāts, bet arī līdzekļi to sasniegšanai. Ja rezultāts un līdzekļi netiek līdzī izvirzītajiem mērķiem, veidojas neatbilstībai proporcionāla iekštelpas/ārtelpas disharmonija. Jo augstāka atbilstība starp mērķiem un rezultātu vides veidošanas mākslā, jo augstāks sasniegtās harmonijas līmenis. Jo lielāka plaša starp tiem, jo lielāka disharmonija sagaidāma.