

# Introduction of conceptual project ideas into the realia of modern Ukraine architecture. (Based on the example of an international student's design seminar concerning renovation of an assembly hall in the first academic building of Lviv Polytechnic National University with extending theatrical function)

## Summary

The article presents results of an international project seminar which was organized and conducted by Lviv architecture school in Lviv Polytechnic National University in May 2017 having invited artistic groups from Toronto (Canada), Dresden (Germany) and the city of Dnipro to participate.

Keywords: architectural, scenographic, technological, technical and functional palette of a hall stage

## Identifying the problem and analyzing the latest scientific researches and publications

Department of architectural environment design was created by a degree of Lviv Polytechnic National University rector on November 28, 2003 No. 183-10 at execution of resolution of Academic council as of September 23, 2003 (protocol No. 20). In 2004 there was the first bachelors' graduation with the speciality "Architecture". In December 2005 the department had a successful defense of diploma projects with the speciality "Architectural environment design". In 2007 there was the first masters' graduation.

For over fifteen years 6 doctors of architecture (PhD), more than 120 masters, hundreds of specialists, over 500 bachelors have defended their theses at the department. Department teachers published 7 monographs, 8 textbooks, over 200 articles. The department has participated in 100 conferences and 90 exhibitions of various levels where more than 60 decorations, Grand Prix in particular, and 37 diplomas of the I degree. Teachers and students of the department have taken part in designing and building of over 100 architectural objects.

Academic cooperation with Vienna, Dresden, Kielce, Dnipro, Kyiv and Toronto has helped gain such significant results at

the department. Common academically-projected seminars which our architecture school conducts in Ukraine and abroad have become an important element of speciality development.

Modern times demand for a change of an old paradigm in Ukrainian national architecture – and the science about architecture in broad meaning, achieving higher level of scientific-practical generalization which from presenting certain projected-building achievements or researches dedicated to certain problems of architecture existence and specificity of activity, shift gradually to a single phenomenon in its indissoluble unity, in interaction of all constituents which form it. It all demands for wide practical and theoretical worldview of architecture creators in order not to be dissolved in one certain solution, stage, period, style and solve the problem in its evolution, from the simplest shapes of space and architecture environment to the most modern ones, treated in syncretic unity and, most importantly, in



Fig. 1. a. Project-concept of an academic building of Lviv polytechnic National University. b. Landscape design architecturally-subject design of environment in gardens and parks at the main building of Lviv polytechnic National University. c. Architecture design of academic building of Lviv polytechnic National University at Mytropolyta Andreyra street

comparison to the achievements of world architecture experience.

This last comparison, use of world experience and its role in conception of Ukrainian national activity – science, practice and education is one of the least adapted parts of our architecture. It especially concerns projective-academic experience in its all possible manifestations. Although over the recent years in Ukraine of V. Proskuriakov, V. Timokhin and others [1], [2], [3], [4], [5] it is still unclear which forms of world professional experience adaptation have place in modern national architecture creativity. It concerns both artistic and organizational experience. The very creativity algorithm

of particularly practicing architects in Ukraine stays unclear – do they simply copy the examples of foreign architecture and mechanically transfer worldwide known solutions into conditions of post-Soviet environment in Ukraine or do they apply authentic achievements and phenomena.

All these questions look rather weird since practical majority of issues of "AAC", "Будуємо інакше", "Є", "Ватерпас", "Архітектурний вісник" and others publish various projects and constructions. However, there is no the most im-

\* Prof., D. Sc., Ph. D., Arch., V. I. Proskuryakov, Head of department of design of architectural environment of the Institute of architecture of Lviv Polytechnic National University (Lviv, Ukraine).

\*\* M.Sc. Arch. Y. V. Filipchuk, Ph.D. student at department of design of architectural environment of the Institute of architecture of Lviv Polytechnic National University (Lviv, Ukraine). e-mail: filipchukyurii@gmail.com

\*\*\* M.Sc. Arch. O. V. Krasylnykov, Ph.D. student at department of design of architectural environment of the Institute of architecture of Lviv Polytechnic National University (Lviv, Ukraine).



portant in all diverse Ukrainian architecture activity – there are no international common projects, educational projects, contests, conceptual, search, experimental ones etc., and especially the analysis and the very results of such activity – open discussions, exhibitions, reviews in press, interviews in mass media as lower level as well as ordered contests, real projects and constructions as the highest levels of the separate what is happening in Ukraine nowadays.

Against this background it does not look “scholasticism” at all what Ukrainian architecture schools achieved in project competition activity during 2000–2015 in Kyiv, Lviv, Dnipro as this kind of activity is the most popular form of checking its artistic courses by practicing architects (they attend such events much more actively than any others) as well as manifesting progressive architecture ideas in general.

From this perspective certain interest might be called by the results of an architecture event which took place in May 2017, it was organized by Lviv architecture school and the department of architectural environment design, having invited students and teachers from Ryerson University (Toronto, Canada), Technical University (Dresden, Germany), Prydniprovsk State Academy of Civil Engineering and Architecture (city of Dnipro) to participate in an international design seminar which is known in both Ukraine and Europe as “International design seminar on restoring the assembly hall of the 1<sup>st</sup> academic building of Lviv Polytechnic National University with widening theatre functions”. Conceptual part of the seminar was made by professor V. Proskuriakov from Lviv and Sh. Dolgoi and P. Bosyi from Toronto.

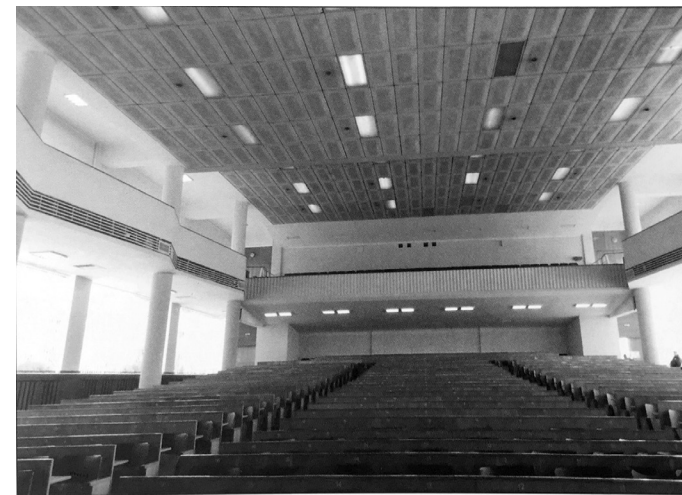
## 2. Presentation of the main material

The topic of the seminar did not emerge accidentally, for a few years the department had been cultivating academic design in a way that one of the semesters is completely connected with the themes of architecturally-environmental problems of Lviv Polytechnic National University which later grew into real projects which were crowned to be built in kind. It is worth remembering arrangement around the main building or the projects of academic buildings in Ustyianovycha or Sheptytskych str (see iil. 1 a, b, c).

Ill. 2. Main façade of the first academic building from Konovaltsia street in Lviv



Academic lecture and laboratory building No.1 was the first building of Lviv Polytechnic complex, it was designed by Student’s designing-construction agency of Lviv Polytechnic University. Professor I. Bagenskyi and architecture teachers of construction faculty R. Lypka, A. Rudnytskyi and M. Mykula worked on the project. Designing main plan, operation group followed the principles of combining a new building with an existing one as well as desire to achieve laconism in the plan of a building with rectangular corners which would maximally allow to use typical assembly constructions. Therefore, the shape of a new academic building reminds letter “Z” (iil. 2. General view of the academic building). The building was divided into three functionally-planning parts: central, right and left. Second floor of a central part was occupied by a double-height assembly hall with 1000 seats with galleries where another 300 people could be seated. With a necessity to conduct events in the assembly hall during academic time it could be isolated on the level of the second floor from side wings where studying took place (il. 3. General view of the hall). However, at the beginning of 2000 the hall ran out of technical and technological capabilities as well as functional ones. Lviv Polytechnic National University student’s population grew to an amount of 30000 people, their culturally-academic and aesthetic needs grew as well. Apart from academic, methodical, ideological events significant space in the hall was occupied by artistic ones, however during 60% of time this biggest of university spaces was kept half empty. At the request of the Rector the head of the department of architectural environment design and its leading pedagogues decided to broaden functional palette of an



Ill. 3. General view of parterre and balconies of an assembly hall of the first academic building. Current state

existing hall. Extending theatrically-performing function was chosen as the main renovation vector and it would satisfy the needs of not only students but also citizens and city guests. The following ideas were accepted to be the aim of project seminar: to develop architectural conception of renovating historical hall having secured using there a wide range of modern events and means of functional activity and having guaranteed aesthetic solution of its environment in accordance with the demands of the 21st century and at the same time having preserved tectonics and vividness of that time when the project had emerged and construction had been conducted.

Ill. 4. Project by the results of parti diagram was prepared by a student M. Nagorna, supervisor prof. V. Proskuriakov, lecturer I. Kopyliak, with the participation of a postgraduate Yu. Filipchuk



All seminar participants, students and teachers came to Lviv before its opening. On 22 May seminar started with identifying project tasks and creating artistic groups. One of the solutions at the event was organizing international project student’s groups which were supervised by teachers and postgraduates of the department of architectural environment design of Lviv Polytechnic National University. Altogether 31 students participated in the seminar. Working part of the seminar ended on 27 May with the presentation and discussing searching solutions in the form of parti diagrams of projects.

Among some ideas suggested by the students from Lviv, Dnipro, Dresden and Toronto in the form of projects-parti diagrams, conceptual as well as bachelor’s qualification works the ones which deserve the biggest attention are the following works which were presented by the students Jenny Hong (Ryerson University), masters D. Dulov, K. Tverdokhlib (Lviv Polytechnic National University), bachelors O. Kotous, M. Nagorna, A. Zykova (Lviv Polytechnic National University) under the supervision of a postgraduate of the department of architectural environment design (Lviv Polytechnic National University) Yu. Filipchuk they decided to provide stage space with a number of the following possibilities.



According to them, existing stage-bay in the hall could transform into stage-arena, deep, diametrical and trilateral stage due to transformation of board constructions and equipment. Parameters of stage and hall space could also be changed by a mobile portal which would perform the function of light bridge with placing light batteries on it. The project also presupposed placing soffits on the pillars at the height +11.00. The project suggested substituting the seats in parterre, removable front rows, possibility of placing small playgrounds deep in the hall for better play communication with the audience. Higher levels of the hall had a box designed for people with special needs and event guests.

Behind the arriere scene, in the hall spaces at the mark +3.60 artistic group presupposed men's and women's make-up rooms from which actors would have the possibility to conveniently and quickly get onto the stage. Due to the fact that the hall was designed for various using functions it was decided to install movable wooden blinds in existing windows which would let fast and quality control over natural lighting depending on the genre of work. In order to strengthen acoustics in the hall it was suggested to install suspended acoustic panels under the ceiling.

Moreover, attention should be paid to the project of students from artistic group consisting of master A. Shtendera (Lviv

Polytechnic National University), master Tutko (Lviv Polytechnic National University), bachelor Foliush (Lviv Polytechnic National University), bachelor Dovga (Lviv Polytechnic National University), Adriana Layla Lychach (Ryerson University) under the supervision of Candidate of Architecture I. Voronkova and postgraduates of the department of architectural environment design O. Krasylnykov and K. Yanchuk, where the attention is paid not only to innovative decisions concerning renovating assembly hall but also to architecturally-functional organization of space of the whole building.

According to the idea of the group assembly hall was to undergo certain changes directed at extending the possibilities of functional palette as well as modernizing its aesthetical component. Among those changes it is possible to distinguish the following: provide the possibility of changing stage configuration by means of introducing lifting mechanisms, this in its turn would lead to transformation of an existing stage into trilateral, stage-arena, peninsular; stage portal would also be enriched

with metal construction, bridge, with the possibility of placing on it lighting equipment; the authors suggested a new scheme of seating the viewers and emergency exits which would relatively bring the hall nearer to theatrically-performing; changes were introduced into architecturally-constructive setting of the ceiling. Modernization of hall acoustic equipment was suggested in accordance with modern demands. Extending functional theatrically-performing potential of the hall would certainly lead to the necessity of arranging additional technical functional premises. In the project room for translators, audio and video recording and radio connection room, video designing room appeared.

A question was raised concerning integrating make-up rooms and dressing rooms into established environment of academic building. However, this task was also solved by separating small hall space on the second floor behind the stage for this function for both new and existing ones which had been performing other functions.

Project of renovating assembly hall and improving its theatrically-performing function is conceptually connected with transforming space of the whole building taking into consideration existing and new functional premises.

On demand of need for functional extension of assembly hall space project authors suggested utilizing the space of the first floor as well. New measures include the following: renovating all cloakrooms; equipping service and office rooms; transform the premises of a former student's canteen into a cafeteria with cabaret. It was planned to install ramps for disabled people. It was also suggested to project lifts into already existing staircases.

Apart from developing architecturally-functional future of the hall and building in general the project also considered the idea of renewal or creation of new premises and spaces which would have to ensure all its broad activity and particularly organization of medical health safety for visitors as well as for direct users: students, teachers, Lviv citizens and visitors.

Increasing the amount of visitors simultaneously staying in the building (renovated hall, rooms and academic halls) reminded the project authors of the necessity to renovate existing first-aid post. Authors suggested its modernization with developing the functions of informational support in the shape of informational table and analytically-consultation modules which would enter the network of medically-propylactic aid to university students and employees.

Declared above ideas, together with those implemented in other projects got visualized in schemes, sketches, pictures and photos. On 27 May there was defense in the halls of Lviv Polytechnic National University where representatives of different departments of architecture institute were invited. In the atmosphere of friendly but critical consideration most of presented ideas were permitted to be continued as semester and bachelor's qualification projects.

Undoubtedly, during designing works received various transformations and clarifications. List of spaces necessary to be re-

novated limited itself only to those which work for servicing the hall. All things considered, all projects and those summaries presented above are ready for exhibition in September.

### 3. Conclusions

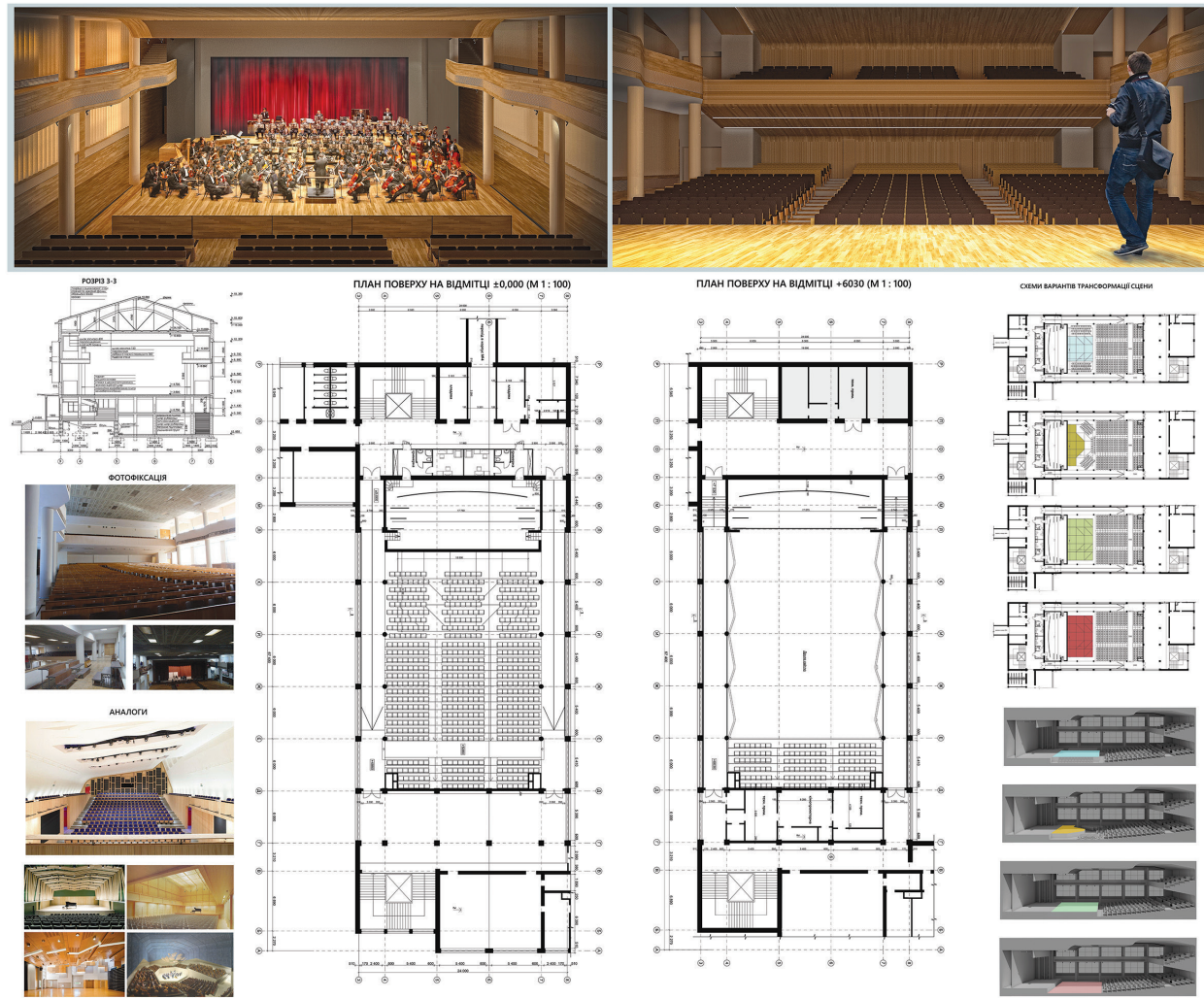
Experience of communicating during the seminar with high level professionals (prof. V. Proskuriakov, prof. Sh. Dolgyi, prof. P. Bosyi) proved that such form of teaching architectural environment design and design of theatrically-performing spaces, premises in particular, may be extremely useful in academic design of students of different years, but effective and fast receiving special knowledge. Participation of students of various artistic specialities in international project groups may be considered as an important element such type of design success as it allowed Lviv students to get basic knowledge of various aspects of art of scenography from the participants from Ryerson University and knowledge of monumental organization of city environment, which was shared by the representatives of Dresden Technical University. Seminar proved that fundamental academic platform of the department of architectural environment design of Lviv Polytechnic National University, speciality Architecture and city planning in the future plans the development of specialization "Architecture scenography" and "Architecturally-scenographic aspects of developing urban environment".

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Ill. 5. Project by the results of parti diagram was prepared by a student T. Gorodchuk, supervisor prof. V. Proskuriakov, with the participation of a postgraduate O. Krasylnykov

ДИЗАЙН СЕРЕДОВИЩА УНІВЕРСАЛЬНОГО ЗАЛУ ПЕРШОГО НАВЧАЛЬНОГО КОРПУСУ НУ "ЛЬВІВСЬКА ПОЛІТЕХНІКА" З РОЗРОБКОЮ СЦЕНІЧНОГО КОМПЛЕКСУ



Керівник :  
 д-р. арх. Прокуряков В. І.  
 Вик. ст. гр. АР - 45 Городчук Т. Я