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# THEORY AND PRACTICE OF ACADEMIC EDUCATION IN ARCHITECTURE AND URBAN DESIGN: FROM BILATERAL COOPERATION TO INTERNATIONAL PROJECTS

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**Abstract.** This article presents analyses of thoughts and ideas expressed at the international symposium, which was dedicated to the 20<sup>th</sup> anniversary of cooperation between the Institute of Architecture of Lviv Polytechnic National University and the Faculty of Architecture and Planning of Vienna University of Technology. The results of cooperation and perspectives of its further development are considered in the context of presented ideas.

**Key words:** academic cooperation, architecture, urbanism, EU, Institute of Architecture of Lviv Polytechnic National University, Faculty of Architecture and Planning of Vienna University of Technology.

# **1. Introduction**

The cooperation between the Institute of Architecture of Lviv Polytechnic National University and the Faculty of Architecture and Planning of Vienna University of Technology can serve as an example of fruitful and reciprocal development of relations between the educational institutions. Thanks to the support of Austrian Federal Ministry of Science, Research and Economy as well as Austrian Agency for International Mobility and Cooperation in Education, Science and Research it became possible not only to open the scientific potential of many university students and teachers, but also to establish and strengthen personal contacts and to lay the foundations for the development of new scientific research projects.



Fig. 1. From left to right: The Lviv part of international symposium dedicated to the 20<sup>th</sup> anniversary of cooperation between the major schools of architecture from Lviv and Vienna; Speech of Prof. Christoph Luchsinger; Speech of Prof. Manfred Wehdorn

This article is based on analyses and generalization of materials of international symposium, dedicated to the 20<sup>th</sup> anniversary of cooperation between the major architectural schools of Vienna and Lviv. The results and directions for the further development of cooperation are regarded in the light of those analyses. The symposium was divided in two parts and took place both in Lviv and in Vienna. The program of two parts included the speeches, statements and discussions by scientists and professionals from Lviv, Vienna, Kyiv, Delft, Cambridge, Odessa, Kharkiv, Krakiv and other cities.

#### 2. Basic Theory Part

The first event that was dedicated to the  $20^{th}$  anniversary of cooperation between the Institute of Architecture of Lviv Polytechnic National University and the Faculty of Architecture and Planning of Vienna University of Technology took place between November  $18^{th} - 21^{st}$ , 2015 within the premises of Lviv Polytechnic National University. It was a representative international symposium under the title "Theory and Practice of Academic Education in Architecture and Urban Design". This event was visited by the delegation from Vienna as well as by the scientists from Poland, Great Britain, the Netherlands, Germany and other countries. This part of international symposium can be regarded as a scientific project, aiming to look at the most urgent questions of architectural education.

The plenary session of symposium was split into one ceremonial and three work sessions, dedicated to the development of architectural education, perspectives of urban planning and preservation of architectural heritage. The opening of the plenary session started in the Assembly Hall of Lviv Polytechnic National University. This session was named "20 Years of Cooperation: Lvivska Politechnica/Vienna University of Technology" and its moderators were Prof. Bohdan Cherkes and Dr. Andreas Hofer. Welcoming speeches were delivered by Prof.Yuriy Bobalo – the Rector of Lviv Polytechnic National University, Prof. Christoph Luchsinger – the Chairman of Professor Curia, Vienna University of Technology as well as by Dr. Elisabeth Hofer – former Head of Lviv Office of Institute of Eastern European Studies and current Director of Studies at Vienna Diplomatic Academy.

The former Dean of Architecture Faculty at Vienna Technical University Prof. Klaus Semsroth presented the key speech under the title "20 Years of Cooperation". Prof. Semsroth presented the history of development of cooperation. The origins of this process can be dated back to the beginning of the XIXth century, when Lviv Polytechnic was founded. At that times architectural education in Lviv was oriented by the standards of Vienna Technical University. As a result of geopolitical divisions of Europe which took place after the First World War, the rupture of relations between architectural schools of Lviv and Vienna took place as well. After 1939, when Lviv became part of Soviet Ukraine these relations were completely broken. The contacts between two architectural schools of both technical universities were revived only after the year of 1991 thanks to the professional activity of Prof. Martin Kubelik. His initiative was supported by cooperation of Bohdan Cherkes, who was the Dean of Architectural Faculty in Lviv and Prof. Yuriy Rudavskyy from Lviv Polytechnic National University with Dr. Elisabeth Hofer, who at that time was the Head of Lviv Office of the Eastern-European Studies Institute. Mrs. Dr. Elisabeth Hofer had the objective to re-activate the old contacts and to establish new ties between the two architecture faculties.

Already in 1994 the first exchange of students from both universities took place. In 1995 a memorandum about the official start of cooperation was signed. The Austrian Ministry of Science and Research ensured a yearly financial support of cooperation. Until 1999 the cooperation from the Austrian side was guided by Prof. Kubelik. Afterwards Vienna University of Technology was represented by Klaus Semsroth and Andreas Hofer and from 2006 also by Elisabeth Leitner. From the side of Lviv Polytechnic National University Prof. Bohdan Cherkes was always the head of cooperation.

Today the variety of activities, which take place in the context of cooperation, is very broad. There is not only the exchange of students and organization of workshops going on, but also the development of scientific cooperation. More than 35 scientists from Lviv had the opportunity to work on their research in Vienna, among them: Prof. Bohdan Cherkes, Prof. Viktor Proskuryakov, Prof. Ihor Hnes, Prof. Halyna Petryshyn, Prof. Svitlana Linda, Prof. Mykola Bevz, Prof. Mykola Habrel, Prof. Yuriy Kryvoruchko, Prof. Andrii Pavliv, Dr. Yurii Rochnyak, Dr. Oresta Remeshylo-Rybchynska, Dr. Olha Kryvoruchko, Dr. Anton Kolomyeytsev, doctoral student Natalia Mysak. Among the main publications prepared in the context of cooperation we can name the following books:

- Identity, Architecture and Reconstruction of the city by Bohdan Cherkes [1];

- Linear City Kharkiv 2011 by Andreas Hofer, Elisabeth Leitner and Bohdan Cherkes [2];

- Urban Metamorphoses for Crimea, 2006 by Bohdan Cherkes, Andreas Hofer and Klaus Semsroth [3];

- Lvivian Lviv, Architecture and the City, 100 Landmark Buildings, 2012 by Andreas Hofer, Elisabeth Leitner and Bohdan Cherkes [4];

- Architecture of Ukrainian Theatre: Space and Action by Viktor Proskutyakov [5];
- Architectural design of public buildings and structures by Svitlana Linda [6];
- **Multifamily Housing: Tendencies of Evolution** by Ihor Hnes [7].

The key aspects of the cooperation relate primarily to current questions in city development and urban design, the dealing with historic urban structures, urban density, aspects of communication in architecture as well as the application of new technologies. The focus points in the content of the cooperation have been derived from the general framework of its existence: from the joint interests of both schools of architecture, from the specific characteristics of the cities of Vienna and Lviv as well as from the skills and primary areas of work of the persons involved. At the end of his presentation Prof. Klaus Semsroth expressed the gratitude to the Austrian Ministry of Science and Research and particularly to the Councils of Ministers in the person of Dr. Ramoser and the current coordinators of cooperation Prof. Bohdan Cherkes, Dr. Andreas Hofer, Dr. Elisabeth Leitner. Prof. Klaus Semsroth also indicated that the cooperation between the two schools presents not only potential possibilities for the students and the teachers, but also for development of Lviv and other Ukrainian cities.

After the presentation of Prof. Klaus Semsroth the Cooperation's Website was presented by Dr.Andreas Hofer, Dr.Elisabeth Leitner, Dr. Anton Kolomyeytsev. This project was launched in 2015 before the anniversary of cooperation. The site contains information about the cooperation activities from the year of 1998. On this official web-resource one can find the history of cooperation, its aim and the methods, information about the mother institutions, the coordinators and participants of the project. Amoung them: Dr.Andreas Hofer, Dr.Elisabeth Leitner, Prof. Bohdan Cherkes, Prof. Klaus Semsroth, Prof. Halyna Petryshyn, Dipl.-Ing. Christian Gigler, Dr.Anton Kolomyeytsev, Dipl.-Ing. Stefan J. Kubin, Mag. Arch. Nataliya Mysak. The site contains information about the most important direction of the cooperation, which is the organization of international workshops. Common workshops were organized in 17 cities, including Lviv, Vienna, Odessa, Kharkiv, Kyiv, and others. On Vienna-Lviv website one can also find statements about the scientific works, conducted in the framework of cooperation, about lectures, excursions as well as about past and future events [8].

The ceremonial session ended with the grand event – presentation of the Yuriy Rudavskyy Medal to Dr.Christoph Ramoser (BMFWF, Vienna) and Rektor Yuriy Bobalo (Lviv).

The three main sessions of the symposium were dedicated to the topics of "Architectural Education", "Architectural Heritage" and "Urban Design".

The main direction of the first thematic session "Architectural Education" (moderated by Elisabeth Leitner and Svitlana Linda) was set by the key speaker Sebastian Macmillan from Cambridge University. Talking on the topic of "Architecture and its Place in the Academy" Prof. Macmillan specified the unique role of architectural education and indicated problems present in this sphere today. The professor accentuated that although the designing of a building is a practical craft skill, it is also an endeavour that raises numerous issues about art and culture, practicality and efficiency, an individual and society, the environmental impact and the future of the human species. Its important for these issues to be embedded into the thought process of young architects when designing to become habits of mind. Prof. Macmillan declared that the most important quality of architectural education in academia is that it engages the head, the heart and the hand. At the same time the balance of these three qualities is challenged by the extensive pressure of research.

Prof. Victor Proskuryakov from Lviv Polytechnic National University delivered a speech on the topic "Architectural Environment and Results of Vienna/Lviv Academic Cooperation". In his speech he talked about how we can use the experience of common design and research programs to improve our own

educational methods and procedures. His thesis was supported by a large amount of student works, created in the context of cooperation and which can be regarded as its after-effect.

This topic of architectural education was discussed even further on national and international levels in the statements of Prof. Aleksandr Buryak in "Architectural Education Policy". His study was focused on the relationship between political reality of the last decades in Ukraine and life of the domestic architectural school. The subject of analysis was the methodological perspective of transformation of the architectural education as an active factor of positive changes in the life of the professional community and of gaining by it a meaningful position in society.

Prof. Halyna Petryshyn in her speech "Workshop as Tool in Architectural and Urban Education" spoke about the meaning and the role of architectural workshops for creation of professional world-view by the future architects and urban planners.

The second session "Architectural Heritage" was moderated by Mykola Bevz and Caroline Jäger-Klein. It was opened by the key speech of Prof. Manfred Wehdorn from Vienna with the topic "The Viennese Ringstraße and what is left of it". Prof. Wehdorn emphasized the problems related to the presence of architectural and urban heritage inside modern developing cities. These problems are connected with both the functioning of such important street as Ringstrasse in the context of today and the issues of its preservation. He also gave specific recipes how to treat the monuments and historical environments both to satisfy the needs of today and to preserve their unique character.

This discussion continued in the statement of Prof. Mykola Bevz "The Ringroad of Lviv and the Public Space in the City Center". This speech contained important information about the stages of formation of Lviv's new city center in the XIXth century. Prof. Bevz also spoke about the architectural and urban similarity of the main boulevards in Lviv and Vienna. A large part of his presentation was dedicated to the contemporary issues of preservation of the central part of Lviv as UNESCO heritage object.

Prof. Caroline Jäger-Klein spoke about the common architectural heritage of Lviv and Vienna beyond the Ringstraße. The important part of this topic was dedicated to neglected but very valuable architectural complexes, that can be studied and preserved for future generations. These complexes sometimes form the historical background of physical environment of the city provide the individual characteristic image of Lviv as well as Vienna. The aim to preserve the architectural heritage beyond the historical centers becomes nowadays equally important.

Problems related to the preservation of valuable architectural ensembles of the Ukrainian capital were presented in the presentation of Prof. Olena Oliynyk "Architectural Heritage of Contemporary Kyiv". In her speech Olena Oliynyk accentuated the problems of new city development. One of the key issues in Kyiv is the violation of high prescriptions for the new buildings and alteration of historical environments of the city.

The third part of the symposium was dedicated to the topic of "Urban Design" and was moderated by Markus Tomasell and Andriy Pavliv. The key speeker Prof. Christoph Luchsinger spoke about design competence in urban planning. He presented two visions of high-rise buildings in Vienna and the development of the city of Sinop, that demonstrated a complex approach to intensive development of historical cities.

The presentation of Lviv Chief architect Julian Chaplinskyy "Contemporary Architecture and Urban Design in Lviv" confirmed the need for such strategical visions in the city of Lviv. The Lviv chief architect spoke about the historical problems connected with the development and implementation of city masterplans, designed in correspondence with Soviet visions of industrialization. This caused many problems with the transport system of the city and an inefficient use of the territories. He spoke also about new architectural and urban initiatives, which could have a positive impact on the city of Lviv and which are connected with current intensive development of the city.

Most urgent urban issues in the Netherlands were presented in the report of Prof. Cor Wagenaar "Town Planning in the Netherlands". These problems are connected with historical circumstances of urban development (we can mention the destructions during the war) as well as with the processes of industrialization and globalization. These topics can be seen as the main issues for the future development of European cities.

In his presentation "City Development Plan and Reality" Prof. Yuriy Kryvoruchko spoke about the situation when urban visions meet reality, about conflicts and tensions inside the practice of urban planning. His speech was accompanied by the recent examples from the city of Lviv.

Finally Prof. Boguslaw Podhalanski from Krakiv in his presentation "Kracow – Metropolis of Tourism and Spirit" spoke about a series of urban contradictions, which emerge in touristic cities and have a very big influence on their development.

In his closing speech Prof. Bohdan Cherkes expressed his gratitude for the interesting and important work.

The work was resumed in Vienna. On December, 4<sup>th</sup> the symposium dedicated to the topic "Urban Dynamics within Global Changes" took place in Vienna Technical University.

The first session was moderated by David Groiss and Barbara Trausinger. Their greetings presented Rudolf Scheuvens – the Dean of the Faculty for Architecture and Planning of Vienna University of Technology and Christoph Ramoser from Austrian Federal Ministry of Science, Research and Economy. Christoph Luchsinger – the Head of Department of Urban Design at Vienna University of Technology in his speech "The Role of Internetional Academic Cooperation" spoke about historical meaning of cooperation between two universities, which developed into the sequence of important projects, seminars and workshops. Prof. Bohdan Cherkes in his presentation spoke about results of Lviv symposium. After that, one of the curators of Vienna event Dr. Andreas Hofer announced the main topics of symposium. The symposium "Urban Dynamics within Global Changes" tried in first place to analyse the current and future challenges of urban regions in Ukraine based on the circumstances mentioned above.

In correspondence with the overall topic of the symposium one of the key speeches was presented by Iris Gleichman who, at that time, curated the project "Municipal Development and Rehabilitation of the Historic Centre of Lviv" commissioned by the German Federal Ministry for Economic Cooperation and Development and implemented in the framework of German International Cooperation Agency. In her presentation "Recent Experience of Urban Renewal of Lviv" Ms. Gleichman spoke about her personal work experience in Lviv and the achievements of the project. In six years of its existence the project succeeded a lot in the provision of historically sensitive renovation, the development of new planning instruments, strengthening of awareness and participation, training for craft people as well as in improvement of public space and introduction of sustainable mobility in the city of Lviv.

Viktor Zotov (Canactions School for Urban Studies, Kiev) in his presentation "New Ukrainian Urbanism" spoke about the contemporary challenges for local architecture and urban design. The complexity of the situation is caused not only by economic instability, but also by a range of ethical and esthetical issues. The movement towards the visual comfort of the city and towards absence of visual as well as spatial noise the architect sees as the main guaranty for the future improvements.

After these two key inputs the Chief architect of Lviv, Julian Chaplinskyy in his speech "Contemporary Challenges of Architecture and Urban Design in Lviv" told about urgent problems of the city of Lviv and the possibility of a new development phase. Mr. Chaplinskyy also mentioned important projects, where Austrian architects participate in new architectural projects.

Christian Gigler as a long-time involved actor within the cooperation in his presentation "Abilities Know no Borders: cooperation & what we can learn from each other" spoke about the importance of such collaborations for both sides. On his personal example he described how the contacts gained on the educational stage can further influence the research and professional work.

The representative of the Ukrainian Chamber of Commerce and Industry in Austria Rainer Staltner gave a speed lecture "Austria meets Ukraine – We are up to the Challenge" [9].

The first session of symposium was concluded by a round table discussion focussing on the following questions: Which goals should be formulated to influence current urban reality? What tools within urban planning can be applied to improve the living conditions? Who might be the actors to manage that process?



**Fig. 2.** The Rector of Lviv Polytechnic National University presenting the Yuriy Rudavskyy Medal to Dr.Christoph Ramoser from of Austrian Federal Ministry of Science, Research and Economy



Fig. 3. A Round table discussion between the participants of Vienna symposium

The next session moderated also by David Groiss and Barbara Trausinger started with the speech of vicemayor of Lviv Andrij Pavliv. The next speech under the title "Continuity and Innovation within the Academic Cooperation" was conducted by Prof. Bohdan Cherkes, Dr. Andreas Hofer and Dr. Elisabeth Leitner.



Fig. 4. Dr. Andreas Hofer and Dr. Elisabeth Leitner – the curators of Vienna symposium; Participants of Vienna Symposium

In the framework of the session the new cooperation website was presented to the public. Prof. Halyna Petryshyn and Mag. Arch. Barbara Maschat spoke about the International Competition for the logo of cooperation between the major architectural schools of Vienna and Lviv, which took place in 2015. On the 21st of September 2015 the jury met in Vienna and with Prof. Klaus Semsroth elected as the head of the jury to decide about the competition winners. The first prize winner was Solomiya Hanets, a PhD student and research assistant from Lviv Polytechnic National University.

The event was continued by the presentation of the book "Identity, Architecture und Reconstruction of the City" by Prof. Bohdan Cherkes.

The second session of the symposium ended with presentations of young scientists, who conducted their research in the framework of cooperation.



Fig. 5. Presentation of the book "Identity, Architecture und Reconstruction of the City" by Prof. Bohdan Cherkes

Natalia Mysak spoke about "Identity of Large Scale housing Estates Built in 1960–1980 in Europe". The researcher described the structure and the main aims of her PhD thesis. In its framework she studies possible scenarios for transformation of large scale housing estates in different European contexts as well as the place of identity in this complex process. The model of identity concept and methodology of its analyses was presented on the example of comparison of similar districts in Lviv and in Malmö.

Barbara Trausinger presented her master thesis "The Socialist Linear City Model of Kharkiv".

#### 3. Results and Discussion

The important result of cooperation is its further scientific influence and succession. Scientific symposiums organized in the fall of 2015 managed to collect many urgent issues from architectural theory and practice to look for the new ways of architectural discipline. Many times during the evenings it was mentioned that the important fact is to continue this critically important work on the day-to-day basis. One of such initiatives, which was partly also born as the result of cooperation became the project in the context of Tempus-IV program. This international research and educational project with the title "Regional Sustainable Development on the Basis of Eco-human Synergetic Interaction" is conceived as an initiative to develop multidisciplinary training course for MSc, PhD and LLL students in architecture, urban planning and engineering. SEHSI project (short name) during the years of its development has become a powerful educational platform for development of scientific infrastructure, integration of e-learning components as well as for development of interactive web of connections between many European universities. The work on this project started in 2013. The main coordinator from the side of European Union became the Vienna University of Technology. From the Ukrainian side it is Kharkiv National University for Construction and Architecture. Initially, it was planned that 21 organizations will participate in this project, including 9 European and 6 Ukrainian universities as well as other state-owned organizations and companies (research institutes, ministries and so on). After the annexation of the Crimea in 2014 by the Russian Federation some of Ukrainian partners were not able to resume this collaboration.

The Institute of Architecture of Lviv Polytechnic National University in this project was represented by Prof. Bohdan Cherkes, Prof. Viktor Proskuryakov, Associate professor Yuriy Dzhyhil and Dr. Anton Kolomyeytsev.

Currently this project is on the final stage. In three years time the partners have succeeded to organize a number of coordinating and educational meetings. In the framework of these common meetings a lot of events were organized by participants from EU and Ukraine, among them: important seminars, conferences, teachers' trainings (including Lviv), three summer schools for students (in Valencia in 2014, in Split in 2015 and in Ljubljana in 2016); student workshop in Odessa dedicated to the projects topic. With the support of European grant EACEA it became possible to print 28 textbooks (4 of them were written by Lviv authors) and technically equip a computer class at the Institute of Architecture; a group of students is currently at the final stage of their SEHSI-program training.

The results of this project will also be used after its termination. The basis for that is a specially elaborated training course, which consists of 7 modules (28 course units) as well as internet data bases to know more about the SEHSI project and its materials (http://sehsi.com, http://stvteam.com and http://omnibase.info).

## 4. Conclusions

The results of 20 years of cooperation between the Institute of Architecture of Lviv Polytechnic National University and the Faculty of Architecture and Planning of Vienna University of Technology confirm the importance of bilateral scientific and educational contacts. Many urgent topics discussed at the symposium that was dedicated to the anniversary of cooperation influence the common vision about the future of architectural education. The same issues, especially in the sphere of sustainable regional development became the basis for development of new projects and new forms of collaboration.

Moreover, the importance of the cooperation consists in setting an innovative course for the Austrian-Ukrainian collaboration in the field of university cooperations beyond the above-mentioned key aspects. Finally, the cooperation is an expression of the wish for an increased linkage of academic teaching and research activities between Ukraine and the European Union.

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Богдан Черкес, Світлана Лінда, Антон Коломейцев

# ТЕОРІЯ ТА ПРАКТИКА АКАДЕМІЧНОЇ ОСВІТИ В АРХІТЕКТУРІ ТА МІСТОБУДУВАННІ: ВІД ДВОСТОРОННЬОЇ КООПЕРАЦІЇ ДО МІЖНАРОДНИХ ПРОЕКТІВ

Анотація. Проаналізовано думки та ідеї, задекларовані на міжнародному симпозіуму, приуроченому 20-й річниці кооперації між Інститутом архітектури Національного університету "Львівська політехніка" та архітектурним факультетом Віденського технічного університету. Результати кооперації та перспективи її подальшого розвитку розглянуто у контексті поданих ідей.

**Ключові слова:** академічна кооперація, архітектура, містобудування, ЄС, Інститут архітектури Національного університету "Львівська політехніка", факультет архітектури та планування Віденського технічного університету.