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THE DEVELOPMENT OF PROGRESSIVE TYPOLOGICAL IDEAS BY ARCHITECTURAL SCHOOLS FROM LVIV AND DRESDEN

(based on results of international Ukrainian and German educational and designed seminars)

Abstract

In this article real results of international conceptual designing based on educational seminars between the Institute of architecture of Lviv National Polytechnic University and the faculty of architecture from Dresden Technical University that can stimulate a development of modern architectural typology in historical cities of Europe are observed.

Keywords: searching, experimental, educational, conceptual designing, architectural typology, space, environment

1. Introduction

Searching for modern ideas in an architectural environment design is a continual process of a conceptual, competitive and searching design. That is impossible to do without attraction and enriching of young architects potential, such as students, post-graduate students and lecturers. The other important component of this process is observing of architectural environment designing problems from different points of view, using conceptions and different cultural systems. That's why the Department of Architectural Environment Design of the Institute of Architecture of Lviv National Polytechnic University started to collaborate with the Departments of Urbanization and Reconstruction and the faculty of architecture from Dresden Technical University (Germany). The results of this collaboration have given the possibility to combine knowledge and enthusiasm of students and lecturers that are not only representatives of different designing trends, but also of national architectural schools different methods. They have also given the possibility to speak about searching and application [use] of spatially-environmental architecturally-typological ideas in design and architecture.

A lot of designed seminars (workshops), organized by these two higher educational establishments in 2009-2010 were dedicated to problems of searching of the new ideas, connected with a development of historical centers such cities as Lviv, Dresden and Berlin. The first workshop was called "The center of

Europe is situated in the East" and took place in Lviv in May, 2009. The second one was called "Ways across Dresden. Urban designing in Dresden" and took place in Dresden in November, 2009. It included themes, connected with Dresden and the theme, connected with the renovation of Alexanderplatz architectural environment in Berlin. The third educationally-designed seminar took place in October, 2010 and was dedicated to a territory on the banks of the river Elbe in Dresden. It was more complicated because of its denomination "The city and its silhouette".

The concept and the design of the seminars were elaborated by professors H. Schellenberg and T. Will from Dresden and Lviv's professor V. Proskuryakov. Active participants of this process were the leading lecturers of these higher educational establishments: B. Harbaum, B. Goy, Yu. Bohdanova, D. Hamann and K. Kepke.

At the end of the XX century and at the beginning of the XXI century a lot of scientific works appeared in Ukraine. They were written among others by: I. Fomin, V. Proskuryakov, V. Kutsevych, V. Timokhin, V. Vadymov, Yu. Bilokin at the level of fundamental investigations. Scientific works, written by B. Goy, O. Proskuriakov, Yu. Bohdanova, O. Kordunian, R. Stotsko, L. Shuldan were dedicated to investigations of separate or special architectural trends connected with analysis of progressive architectural ideas formed by individual creators and architectural schools [1, 2, 3, 4, 5].

However, not enough was written about the influence of these ideas on a national or international architecture. And, in particular: on the development of progressive typological architectural ideas; their development in time and space; and the issue, that it does not depend on ideological, political, sociological circumstances and conditions.

It is easy to notice it on a background of different vector less publications about achievement of a world and a national architecture in our rare almost layman's publications like "Architekturnyi Visnyk", "Buduimo Inakshe", "An Architect", "Archi Idea", "Civilization", "A10", etc. There are no publications there about a role, a real level and a creation algorithm of a modern architecture, its perspective, expediency and effectiveness today and in future. Nowadays a modern architecture is not separate, original and authentic phenomenon. It is an international way of common purpose decisions. They include common scientific searching, educational experimental real projects and buildings as a form of control.

That's why the aim of this publication is to explain the progressive architectural typological ideas development trends. They can be found out by comparing the results, received in projects of students from Lviv and Dresden architectural schools. They can be catalytic agents of a modern architecture typology development in historical cities in the world.

In space, time and action - these educationally designed seminars were planned in such a way, that each of them started with one of educational terms. During this period searching tasks and scientific research were done, the city tours by car and pedestrian excursions around the city to general and specific sites were held. The common Ukrainian and German designed groups were also created. After that they finished the first stage in a form of spatial city-building architectural sketch projects, the results were presented and widely discussed. Then, in the next stage they fulfilled not only educational purposes, but were also turned into scientific projects. As there were the features of searching experimental projects with specific themes, which were later presented at different exhibitions, organized both: in Ukraine and in Germany.

2. Basic material statement

Among almost 100 projects, elaborated by students from Lviv and Dresden architectural schools for Lviv, Dresden and Berlin, the most interesting to discuss are the following:

In a designed seminar entitled: "The center of Europe is situated in the East" the participants determined the territory of the Citadel Mountain as one of the most perspective territories for development of central public part of Lviv. Ukrainian and German participants of the seminar have proposed several projects for it.

In these projects a lot of historical and spatially-environmental factors were taken into consideration.

Lviv Citadel Mountain is a unique Ukrainian complex of fortification reinforcements, dated back to the middle of the XIX century that has not been changed since. Nowadays the Citadel Mountain is situated in the central part of the city. It is the most problematic zone in a city-building territory of Galicia capital. The main reason of this territory decline is not only a complicated relief and absence of transport-pedestrian connection with the centre of Lviv but also a historical memory, that is cultivation there a militarist function during a long period of time.

In general this site has an extraordinary potential for development. However, for its rational use it is required to elaborate on some integral city-building and architecturally designed concepts. Thus, they should be able to attract here tourists, city inhabitants, its business, art and scientific investments and to revitalize interesting modern urban space within the city.

The next participants of the seminar had the similar ideas.

O. Kolodiy and S. Abramkin (the supervisor is the professor V. Proskuryakov) in their projects have proposed to build the newest multifunctional complexes in a geometrical centre of the Citadel Mountain that hang over verdure and historical building of its slopes.

O. Kolodiy observed this complex as a huge clock in which a new structure is proposed. It is a huge elliptic clock-face. Its hands are existent barracks in a form of letter V. This decision forms unitary spatial-environmental concept for determination of the whole complex of the Citadel Mountain. It also symbolizes the link, between old and modern buildings.

S. Abramkin has also proposed the newest multifunctional building that would be able to widen functions of the city public centre of Lviv. It is hoisted with help of sand-clock holders above a historical plateau of the Citadel. But in this project the object is observed in attractive modern architectural forms that are influenced by famous West-European architects such as Hans Hollein and architecturally designed group "Gimelb(l)au".

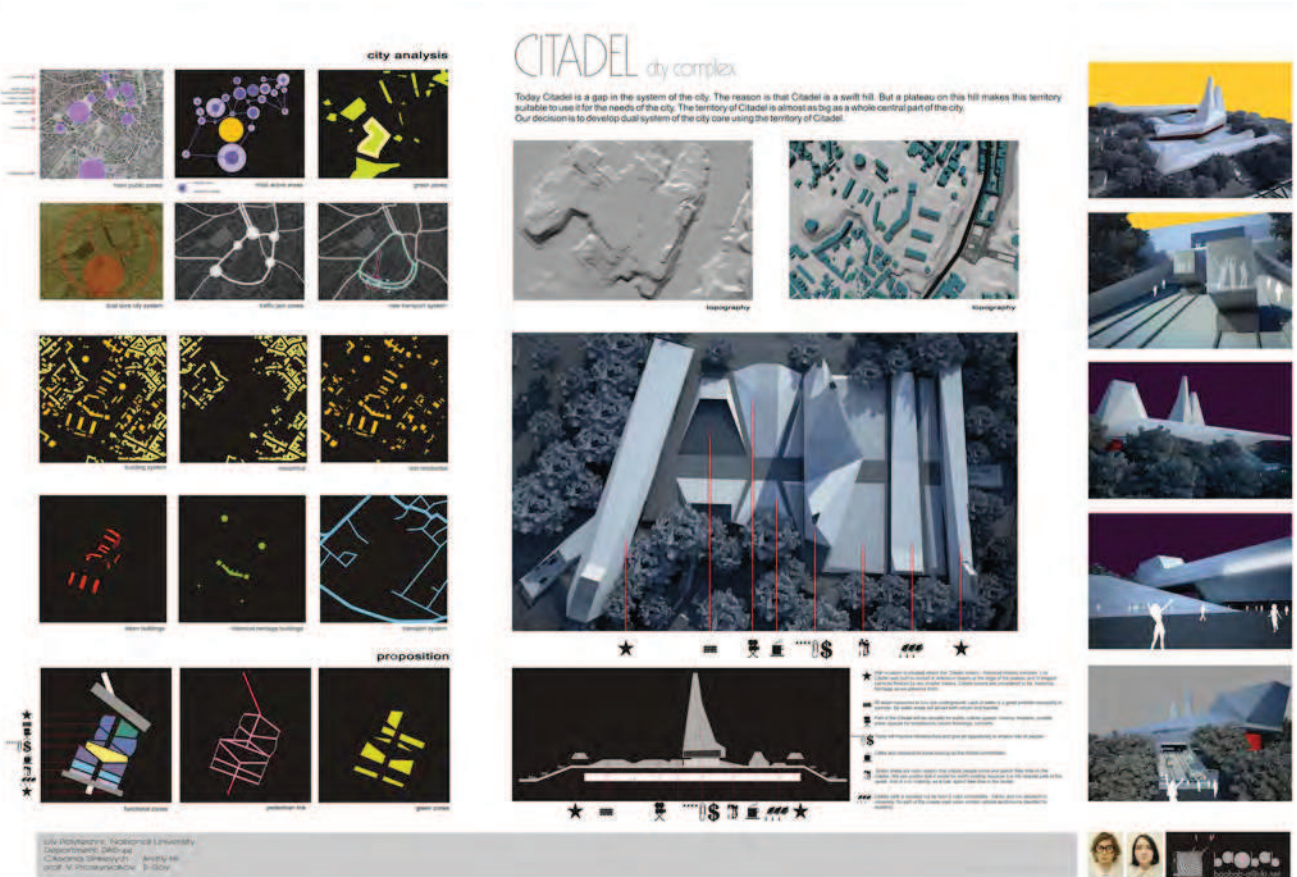


Fig. 1. Project of new city-centre “Citadel”. Authors: students A. Khir and O. Sinkevych, the supervisors: professor V. Proskuryakov and senior lecturer B. Goy

Except of these two projects the other scientific works were proposed. They have planned possible ways of complex decision of the Citadel Mountain territory. These are the projects of students A. Khir and O. Sinkevych (the supervisors are the professor V. Proskuryakov and the senior lecturer B. Goy) from Ukraine and the project of the student Benjamin Sonntag (the supervisor is the professor H. Schellenberg) from Germany.

In the project of A. Khira and O. Sinkevych a designed centre is an autonomous city creation that is integrated into the existent centre of Lviv (Fig. 1). There are a lot of buildings in this complex. It must include some actual functions such as educational, cultural-entertaining, trading, recreational and the like. Herewith it must be a closed for the traffic pedestrian zone. A connection of the designed complex with other parts of the city will be realized with help of funiculars towards M. Kopernyk Street and B. Khmelnytskyi Park. It means that it is proposed to form an axis the City Centre- the Citadel- B. Khmelnytskyi Park. The dynamic composition of different height volumes is an architecturally-spatial

form, proposed by authors. It intensifies a dominant role of the Citadel Mountain in the city silhouette.

It was proposed an additional underground connection between I. Franko Street and M. Kopernyk Street as a decision of transport problem. So, it will be possible to unload existent transport streams. The authors proposed also an additional transport roundabout along streets named after I. Franko and Sh. Rustavelli and an arrangement of underground parkings in a thickness of the mountain. So, it will be possible to decide parking problems of the central part in our city.

Benjamin Sonntag proposed to build a building complex on the Citadel Mountain in his project, too (Fig. 2). However, in contrast to the previous design, the author considered in his design analysis of the terrain. That’s why among many possible ways of this territory building he has chosen the one which fundamentally harmonized with a landscape best of all and does not discord with it. The buildings, proposed by author must have the next functions: museums, restaurants, a concert hall, etc. According to the author’s offer an architecturally-figurative decision

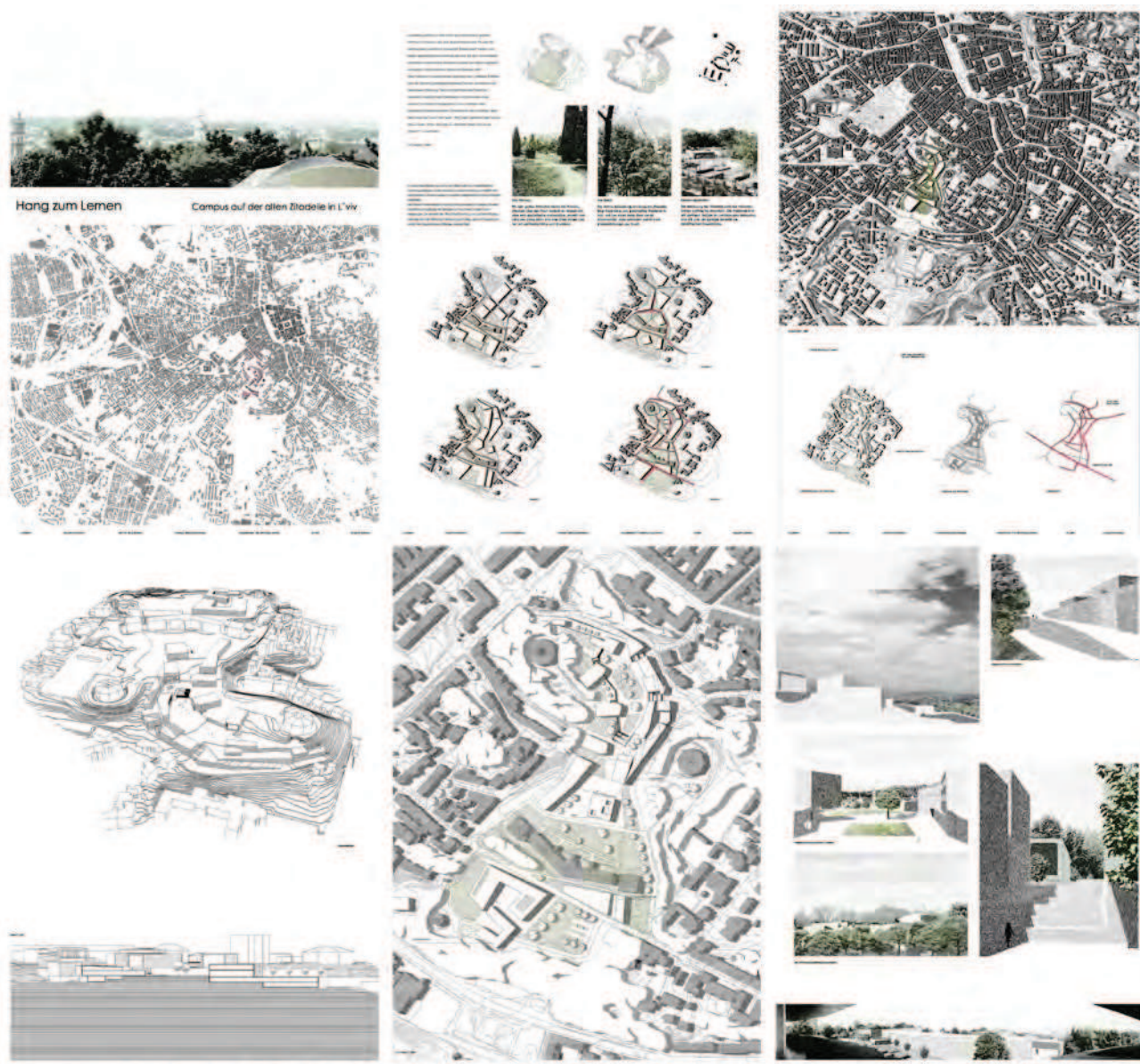


Fig. 2. Project of New Public complex at the mountain “Citadel” in Lviv.

Author – B. Sonntag, the supervisor – professor H. Schellenberg (Dresden Technical University, Germany)

of it can be supramatic concrete forms-blocs that effectively contrast with the natural environment and Neo-Romanticism aesthetic of historical defensive buildings.

Several important urban knots of this city were proposed for functions development for the designed seminar “Ways across Dresden”.

One of the tasks was dedicated to renovation and development of former Dresden river’s harbor functions. Just that very topic was described in the scientific projects written by Lviv students I. Povazhnyak, Kh. Kukharska and V. Skoblikov.

The aim of V. Skoblikov’s project was an improvement of planning, spatially-functional,

technological and transport organization of the harbor scheme. At the same time in the I. Povazhnyak’s and Kh. Kukharska’s projects the city port was observed as a cultural inspection and elucidative building.

V. Skoblikov designed the new harbor closely connected it with a contour of the previous existent building. The only difference was that he explained architecture of a railway station in such a way that it has been integrated into silhouettes and landscapes of a central historical part of the city because of modern materials. The author’s scheme of river transport loading and unloading lets increase and make faster processes of serving. It makes city port work more effective and reasonable.

The harbor was looked upon as a museum of city history in the project of I. Povazhniak. She left on the port front between the city and the river existent building that were redesigned for more flexible transport functions. In the new complex the author designed the museum like an overturned pyramid similar to O. Nimeier museum in Karakas. The most part of this pyramid volume is hidden underground. The pyramid looks like a historical tree. A top of it is lost in ancient centuries. Its levels are connected with historical periods. They are spatial models of the city from different historical eras since 1206.

Kh. Kukharska's project is a combining of harbor and sub harbor's functions with a program of youth centre. The main façade of the centre is hidden behind the existent building of the port. The author connected it with an area of the river Elbe water, consoles-galleries the tasks of which are communication and recreation.

It is not very induced to arrange here an aqua park, a modern art museum and a cinema complex. However, it might be perspective to increase port functions towards additional possibilities connected with service of Dresden citizens and guests.

According to its conception and architectural decision the project of I. Choliy is very interesting, too. It is also partially dedicated to these problems. This student proposed the multicultural centre for cultural actions "The City on water" that is similar to a swimming landing-ship. It looks like a huge ship-constructor centre on water. Its architectural spatially functional parts look like letters from the word "DRESDEN" and are reckoned on different working regimes. It will be able to work as a theatre-ship, a fair-ship, an exhibition-ship and a recreation ship. It will be possible for it to work as integral spatially and functionally connected building and as disperse complex of separate grounds, buildings, amphitheatres, stages, galleries, yards, bridges, piers responsible for exploitation according to individual functional programs. They are delimited in space and time on the both banks of the river Elbe not only in the city but also out of it.

Instead of it German students looked upon the territory of the former harbor as a place for development of new housing [real estates] with certain infrastructure. For example, in the project «Neustadter Hafen Dresden» (the student is B.-R. Kruger, the supervisors are the professors H. Schellenberg i D. Hamann) along a line of harbor near river banks, there were proposed seven blocks.

Houses of 5 or 6 storey are proposed to be built along a perimeter. In their centre there are calm yards. In the north-west part a public centre is planned. One of its buildings will be used as "a lighthouse" (a vertical dominant of building). The berth of the former harbor is suggested as a place of parking for cruise cutters and yachts.

Another interesting topic of this work-shop was a task connected with renovation and reconstruction of retransmitting television tower on suburbs of Dresden.

It was a complicated task for Ukrainian students. Based on their knowledge students V. Kohanovsky and T. Vovk could only incorporate in their design the towers of the television centre.

V. Kohanovsky added to the existent television tower a business centre 135 meters high and destroyed typical floors on the levels plus 71 and 78 meters. That's why this composition became similar to a mast with a sail.

T. Vovk masked the television tower with help of high building volume in general. He used it as a core of strength and a main communication building at the same time. In general the author decided to create a multifunctional building that surrounded the existent tower as a combination of seven blocs of different height, area, volume, different functional programs. This is the first group. After that you can see mini markets, an enlightenment bloc, halls for exhibitions, a park for children's entertainment, a bloc with restaurants, cafes, bars, and a park with exotic plants. And there is a combination of observation grounds above them.

Design works linked with renovation of the television tower were made absolutely differently by German students. In particular, the work "Wege zum Kloster" (the student was Cyril Schmitt, the supervisor was the professor H. Schellenberg) became a very interesting project. He proposed to create a monastery complex on the territory around the broken retransmitting knot. This function is not only in harmony with modern relative isolation of this city's territory, but also creates new sometimes unexpected potential possibilities of contiguous territories development as a sacral environment.

The projects dedicated to renovation of Alexanderplatz in Berlin have taken a special place at the work-shop. Projects made by the students K. Lytveniuk and S. Glukhovecky (the supervisor is the professor V. Proskuryakov) ought to be acknowledged the most successful. The first project was dedicated to a conception of space development



Fig. 3. Fragments of projects of development concepts of space and features of Alexanderplatz in Berlin: a) the principles of development, author – student K. Lytveniuk; b) the means of development of functions and spaces, author – student S. Gluhoveckiy; supervisors: prof. V. Proskuryakov and Yu. Bohdanova



Fig. 4. Fragment of competitive project of regeneration of Alexanderplatz in Berlin named “Ein Herz für Berlin” (the supervisor – professor H. Schellenberg, Dresden Technical University, Germany)

and to functions of this area; the second one was dedicated to means and steps of development. In the first project the author explained the Alexanderplatz as main civilized coordinate of humanity in general and at the same time as main presentation space of Germany. The author is sure that this area is not only the most important communication space of Berlin that is integrated in a city with help of streets, by-streets, public gardens and parks. It is also an original Agora at modern understanding which space can be transformed into enfilade, closet, general systems in land marks above an area and under it.

Space that can be flexible empty dense, pass on world sides, be closer and more distant, big and small, be informative glad uniting (Fig. 3a). Based on such a conception in the second project, the author proposes a palette of means and steps for creating these spaces. The author proposes to develop entertaining exhibition presentation political recreational and landscape functions using stationary (underground) buildings as well as mobile transformed prefabricated collapsible and movable ones, transforming Alexanderplatz from iron pneumatic plastic traditional materials into a main foyer, a garden restaurant, a fair, space for manifestations, a theatre, a cinema of Berlin, Germany, Europe (it depends on necessity) in a form of buildings, spatial creations, gardens and parks... (Fig. 3b).

Differ from Ukrainian students, representatives of Dresden Technical University mainly observed the territory of Alexanderplatz as a place for dense building with help of new buildings from the original "Berlin Manhattan" in the design work with the slogan "Berlin in Berlin" to the modern interpretation of medieval dense building in the project "Mitte ist?..".

The project, named "Ein Herz für Berlin" (Fig. 4) that proposes to build on this territory nine blocks in a form of wrong tetragons, stringed on the main avenue axis is especially interesting. The television tower that is the main dominant of Alexanderplatz at present, in this project is explained as the main visual landmark which is main horizontal axis reflection in a vertical dimension. And the whole building is a complicated combination of opened and closed spaces that surround buildings which architecturally are transitional links between historical and modern buildings.

The last work-shop called "The city and the silhouette" is the third attempt of common educational designing of Ukrainian and German students. During this seminar designing was held in a centre of Dresden on boundaries between a historical city core and a

post-military Soviet building in the north-eastern part of the city. This event took place in November, 2010 and it is beforehand to analyze its results and define the best design works or peculiarities in works of different architectural schools representatives. However, even at the level of previous drawings we can make a conclusion that scientific works of Ukrainian students were more oriented on emotional perception of the designing task. It is intelligible from their works' names (one of the workshop tasks was to define a name for an own project): "Dresden mirror" (the designed group of students I. Cholij and I. Povazhniak), "Broken stereotypes" (the designed group of students S. Glukhovecky, O. Krasylnykov and V. Kurbatov), "Dresden Semiramida's gardens" (the designed group of students Yu. Dyshel, O. Dub) and "My house is my castle" (the designed group of students O. Moroz, N. Pastukh).

The students I. Cholij and I. Povazhniak proposed a silhouette development of the historical centre of the town towards the northern direction along the Elbe River as a mirror reflection of an existent historical core. The difference is, that according to the authors' project the designed part obtained modern hyper suprematic features. And its surfaces reflect surrounding natural and hand-made environment itself.

Another creative group (S. Glukhovecky, O. Krasylnykov and V. Kurbatov) elaborated architecture of their complex in the shape of "a boundless building" which architecture had to contrast with the historically formed silhouette between bridges.

The third group (the students O. Dub and Yu. Dyshel) decided to create the multifunctional complex which terraces and roofs look like hills on the left bank of the Elbe River. It includes groves, glades, streams, gardens and parks that are situated above hidden underground null and on the ground floors-levels. Their main tasks are rehabilitation and development of existent historical centre functions: serving, educational, recreational, etc.

In the project, made by N. Pastukh and O. Moroz the designed space has been explained in the form of the structure with blind external facades and visually indistinct boundaries that was made due to opened flexible internal spaces.

German projects were more pragmatic. There are some of their names here: "Compact connection", "Tor zum Platz", "Pirnaische Terasse" and so on.

Ideas polarization of different schools representatives is conditioned at first by different

perception experience of the proposed designing place: the Ukrainians had first of all emotional impressions without deep knowledge in a history of the place; the Germans had perfect knowledge of the city-building tasks, urban and historical limitation for a development of proposed territory building.

The annotations of ideas from the students' projects, given previously will considerably be deepened later on, during term designing in the chamber conditions in the Institute of Architecture in Lviv and on the faculty of Architecture in Dresden. These projects will be visualized in details in photos, schemes, sketches, designing, drawings and models. Then they will be exhibited in the Institute of Architecture in Lviv Polytechnic University and Dresden Technical University during common German and Ukrainian students' exhibitions.

Comparing Ukrainian and German lecturers' and students' projects it is possible to make the statements placed in conclusions, which are directly related to results of these workshops.

3. Research results and Conclusions

1. Modern means of acquiring information gave the students participating in workshop's excursions the possibility to evaluate qualitatively, analyze, generalize and discover peculiarities of proposed designing environment. And, similarly for the students that were participants of "the excursion" seminar part only, as well.
2. Architectural environment modern state of the centers of such cities as Lviv, Dresden and Berlin demands discovering of new modern designing methods in historical cities. Using only existent environment algorithms on purpose to harmonize a new and an existent architecture only in the places of direct designing could not lead up to successful designed decisions. That's why almost all participants of designing have looked for and found fundamental coordinates of genesis and development of city environments in general. They include places of origin and vectors of the first settlements spatial development, main visual natural and anthropomorphic purchases (mountains, towers and so on), changes in location and the layout of rivers, roads, forests, gardens, etc.
3. To achieve the designed purpose the representatives of Lviv architectural school, using local and European architects experience and design and - in conjunction with the analysis of present and past ideas - have proposed their own architectural

solutions. The experience that they have been getting during educational searching and experimental designing in Lviv (Ukraine) became fundamental for them.

4. The workshops proved that a period of specialized designing in historical cities of Europe environment is over (only a restoration, or only a renovation, or only etc). It is a period of opened designing now. And its main synthesized mean is just an environmental design, a design of architectural environment at present and in the future. It does not depend on a type of environment. It can be either a historical environment or another one. For example, an urban design (a design of an architectural environment that borders on professions, trends, groups, types, kinds and planned decisions) and at the same time a landscape design, a spatial design, an action design or an environmental design, i.e. an architectural one.
5. The main conclusion coming from this collaboration is, that only such seminars stimulate a searching for modern cities environmental development ways' and the understanding of their vital problems.

A collaboration of different schools and representatives of different departments gives the possibility to look at all these problems from different points of view. The students' works exclusively are not sufficient, as they are lacking an overview and might not be engaged emotionally. Outlook at "old problems" of students from foreign countries, with another cultural experience, gives at the same time the possibility for us to make another decisions while solving these problems searching for different solutions to these problems.

Experience gained during such a collaboration stimulates development of ideas for solutions to infrastructural problems in the historical centers of Lviv, Dresden and Berlin. They can be successfully used for solving similar problems and questions in other historically formed cities of Ukraine, Europe and the World.

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