

SCIENTIFIC REPORT

Scientific content of the event

Initially, in the submitted project of the workshop, I mentioned that architecture is a borderline profession, standing somewhere between art and science, and in its outcome you can see them both as major parts of cognition, the artistic and sensitive one, on the one hand, and that of rigor and precision on the other. Thus, architectural research heads to the seemingly divergent directions. The workshop thought to go into the relationship between scientific research and artistic creation. Four themes were suggested so as to lead to a more concrete debate: two of them, *architectural practice and research; design and research – urban planning and heritage conservation* – aimed at carrying out a thorough analysis of the major realms of research and profession; the third one – *creation and scientific research in architecture* – focused on the general perspective of the whole field of research in architecture; the fourth one – *research and architect's formation* – was meant to identify those didactic elements and means able to make students aware of the research activity and critically survey professors' research activities.

The workshop participants were invited to come up with significant contributions to the proposed theme. They were academics from Bucharest, Cluj, Iasi, and Timisoara, who embraced various fields (architectural design, theoretical investigations and urban and territory planning, architectural history and theory, heritage protection and conservation, design and interior design). Most of them have enjoyed national and international recognition through their research and design activity. The participants from the Diaspora were well-known professionals in their countries (Canada and France), working in the fields of architecture, monument restoration (France). However, some of the participants pursued their teaching career in parallel to architectural practice after leaving the country.

The workshop timetable followed the terms of the project closely. The participants were provided with the general theme in time, thus, the participants were aware of the directions of the

debates, while those from the country had time to prepare their special comments on one of the proposed sub-themes. Both the debates and commentaries were extremely enjoyable and vivid, being moderated by key speakers. In the debates, we pursued the already announced sub-themes leading to partial conclusions of high significance. Nonetheless, the commentaries on the sub-themes crisscrossed inevitably, because it was hard to draw a precise line between the several related matters. Yet, the viewpoints varied and at times were drastically opposite, leading to the expansion of the matter under discussion. Thus, they contributed to elucidate some “solid” positions able to help the future approach. In fact, that was one of the major purposes of the workshop.

I am going to briefly outline the conclusions resulting from the participants’ commentaries.

1. Architecture and the current professional context

It is necessary to include architecture in the current context to better understand the mission of the professions, the society’s demands, and thus see where the research is heading.

Firstly, the participants discussed the globalization challenges and the importance of the building marked among architects. The client’s commission – no matter who he/she is (individual, private or public institutions) - has a decisive impact on the architectural project sometimes. This is all the more obvious since sometimes the power (political or economic) imposes clear and precise answers from the architect, and he/she is left with quite a few choices. More than often, the architect seems to be an elitist, a person who disregards the taste of the masses, miles apart from the individual taste. Thus, one of the research directions comes up from such remarks about the profession on the world “stage”. Secondly, in countries like Canada or the USA, there is a growing difference between architecture and construction, since the building industry has imposed a new standardization and, implicitly, a new architectural aesthetics resulting from the features of the industrial produce and not from the architect’s intentions (Dan Hanganu). From this perspective, the architect runs the risk of being marginalized, since he/she is considered “an elite person”, someone you do not really need.

At the same time, the architect becomes a speaker on behalf of technology. Likewise, in certain circumstances, architecture could generate new technology (Nicolas Lupu), reminding us the classical example of I. M. Pei’s pyramid from the Louvre. In this case, the architect pursuing absolute transparency led to special research approaches resulting in new technology disseminated worldwide. Thirdly, even today, architecture holds some values that go beyond the immediate needs

of aesthetics, such as tradition, identity, and cultural continuity. From the globalization viewpoint, they need us here, into the world. This opens into a new, essential direction in architecture.

A more general perspective on architecture (including all its fields, from territory planning to a home appliance) could generate various views on the profession: architecture as cultural activity and cultural reservoir; architecture as an expression of technology; architecture as artistic experiment; architecture as strategic organization; architecture as a public effort, as social/public responsibility and space of debate (Ana Maria Zahariade).

2. Architectural research

General remarks. The above-mentioned opinions include directions of architectural research. They are “checked” against what we currently call “scientific research”. Professor Nicolas Lupu call our attention on the risk we run by moving away whole fields of human thought from the sphere of scientific research, if we continue to believe that architecture is made of “the totality of intellectual work and activities that aim at discovering new knowledge and laws governing the evolution,” and “*scientific*” as an adjective introduces both an object and a method based on objective relationships that can be put to test. Obviously, this perspective in matters of scientific research cannot be applied to the wide sphere of architecture that, as an *art and science*, has known a growing sophistication, a multi-directional development able to alter its unique nature.

Given the architectural complexity in its manifold layers and direction, when confined to a well-defined territory, one could see the variety of various types of research:

- a. Large categories of research. In architecture, research could be directly oriented either to the professional produce (no matter what this is, architectural object, interior design object, object design or territory planning) or to some wider, theoretical research.
- b. Research in relation to **orientation/field** and its character. From this point of view, the following types have been proposed:
 - conceptual research;
 - research in humanities, referring to cultural aspects pertaining to architecture. They are all meant to build some solid foundation/secure the architectural/planning activity and reinforce its position in society. This can be historic, interpretive, and from the architectural criticism perspective. If the first looks into the past and focuses on the development of architecture and urban planning, society, tastes, and building techniques, the latter brings about problems according to

various categories, notions, etc, and critically introduces the new approaches in the architectural design.

- “technical” research is specialized according to various fields: technical and technological, structural, restoration and, in general, heritage conservation, the managerial and strategic fields (especially in relation to urban, territorial policies, participative techniques, public and private partnership), etc.

The current approaches concerning “sustainable development”, defined as that kind of development able to meet the demands of the present without impinging on the needs of the future, open up a whole range of themes for research in architecture and urban planning. If we consider only the problems concerning the protection of environment, the issue of energy saving and climatic changes (priorities of the European research, see the FP7 European program), they are obviously tied up to the way the buildings and urban ensembles are designed and the planning of our cities. We can include here also the issues concerning heritage conservation, deemed as a “reusable resource” and cultural asset within globalization process.

The participants agreed that, within the large range of architecture and urban planning, one can identify various types of research, from the one similar to artistic creation (in the architectural design, where formal innovation or quests of expressiveness are based on rational, logic thinking) to fundamental research operating with procedures and information as well as its paradigms involved into the research carried out by architects, no matter their field. The participants explored and debated two research directions: research by architectural design and research in urban planning.

If in some particular fields of architecture (such as architectural technology, architectural history and theory) the role and content of research seems relatively clear, one cannot find a similar relation between the architectural design and research.

Several participants emphasized that the latter is inevitably connected to concrete conditions, technological necessities and artistic and creation aspects always there in our profession. But for the latter, architecture would be much poorer and lose its cultural role. However, it is difficult to quantify architectural creation, since it belongs to categories of value. This problem has been always there when one has to evaluate an architectural work. In such occasions, the value of the artistic gesture is hard to accept, even if it followed the goals of theoretical research, appealing to similar methods and yielding similar results.

Dan Hanganu, an world known architect, stated that “I always do research in architecture,” and emphasized that only the creative act could “orchestrate” the variety of conditioning under which the architectural design is born. Mihai Munteanu, a famous architect in France, gave some examples of how every technological conditioning poses questions of expressiveness, thus creation, to the architect.

Several participants pointed out the fact that one should consider the organization of research within universities so as a better relation with contemporary architecture and adjustment to Romanian conditions (urban, economic, cultural, social, etc.) should develop and thus generate a conceptual basis of design, either in architecture, urban planning, interior design, or territory planning. Participants widely discussed the manner in which research, carried out by high professional structures, could be implemented in the process of learning, either in the specialized courses (architectural history and theory and urbanism) or in architectural studios.

Although the opinions differed, all participants agreed that one should emphasize the conceptual stage in design.

In urban planning, unlike architecture – with its strong artistic and personal sides – research should deal with the general public interest. Thus, in urban planning, research is time oriented and seeks to identify laws and define theoretical concepts along with spatial development and the identification of practical objectives. At the same time, urban research depends on the spatial scale under consideration, from the terrain surrounding a building to the scale of urban space, to human, urban or rural settlements and the territory including natural and anthropic elements (Cătălin Sârbu). Some commentaries focused on some institutional drawbacks that influence both the research produce and the status of urban planning itself. For instance, Gabriel Pascariu, said he was working on a national concept of spatial development, based on European models and demands; it is also means to identify and establish some growth and development benchmarks as formulae of consolidation of the urban system and reinforcement of socio-economic development. However, the theoretic sources to back the concept seem to be relatively weak, since one can find them rather in scientific disciplines like geography, sociology and regional economics. Unlike other fields, urban planning does not benefit from distinct programs and resources, and financing is accessible only through more complex programs including related fields; given the context of the European Union preoccupation for research in the field of spatial development (urban and territory planning), some support actions should be taken (a very good example is the ESPON programme for territory

research, for which 45 million Euro have been allotted to cover 2007-2013). At the same time, the problem of urban planning research at the institutional level has been mentioned along with concepts and development directions adopted by EU, and also access to specific funds.

3. Research and the formation of the architect

As a higher education institution, university is going to remain a major place for specialized research. The qualification of the faculty, the cultural milieu favorable to reflexion and deeper pursuits into concrete and urgent matters or into those opening up new perspectives testify to the academic research potential.

As we can foresee it today, the future of the profession calls for a program able to introduce students into areas of specific research. Ștefan Mănciulescu noticed that the teaching methods are essential in training our students' critical eye, personal observation, and readings. He reminded us about the two possible, widely used approaches of induction and deduction. The latter generates remarkable results, for instance, on students' from the restoration school of Chaillot (Paris) first contact to the monument to be studied for the restoration project. The stimulation of the potential of creative and serious investigation of things, progression and phenomena related to the profession and contemporary world is, undoubtedly, a long-term education period that is applied in the Architecture Schools in two directions. The first can be found in several courses, in the electives in particular, where evaluation is carried out by the assessment of a research project. The second is specific to their design activities allowing them to adjust to the preliminary stage of the project, when the student is capable of expressing his/her critique as to recent achievements, current design principles and chosen technologies. Professor N. Lupu was right in arguing that "the formation of architects to be is essential; we should never forget that *each project is a piece of research.*" The problem of "ambiguity" in understanding the specific character of architectural research is shared by every European School of Architecture facing some growing demands in matter of research; this is why we should clarify the specific aspect of research in and through the architectural design. Thus, in April 2009, an international conference is to be held in Belgium (organized by the Saint Luc School of Architecture, Brussels, and the Architecture Department at Chalmers University of Technology from Goteborg, Sweden). The theme of the conference is *Communicating (by) Design*. The conference memo reads that cognition involved in design synthesizes intellectual, creative, experimental, and interpretative abilities that sometimes go beyond the forms of knowing privileged

by conventional research. Thus, the goal of the conference is the exploration of development directions in the realm of research through architectural design and, in particular, through “communication”, one of the major challenges in research-based design.

The annoying “branch” prejudice – i.e. the divorce between theory and practice – keeps research away from education. The first steps to be taken concern a completely new thinking in education, in which the doctoral programs and post-graduate masters should find their natural place.

4. Research in architecture: how it is funded and efficient it is; research quality

One of the research problems debated, though not included in the workshop theme, was financing. Some dysfunctions have been pointed out. For the concrete projects (all kinds of architectural, urban planning projects, etc) research activities are included in the design activity and are financed following public bids (minister, local or county councils, etc) or direct commissions (private investors). The research programs involving applicative or fundamental research need solid funding. The ambiguous status of architecture as cultural fact (implying research in humanities) does not make it a national or European priority. However, “technical”, specialized research gets funding quite easily. It is true that for some years now there is a wide range of projects funded from public funds. The participants noticed that there were not inter-academic complex research projects involving the Romanian faculties of architecture able to be funded either from domestic or European resources.

The second major aspect evoked by most participants was the manner in which research themes and the academic research in general were assessed. Currently, the evaluation criteria are borrowed from the strictly scientific and technical areas, and not properly translated. For instance, there are not such criteria for arts, to which architecture belongs rightfully, being included in vocational categories. Thus, it does not encourage this special kind of research and, what is more, the evaluation does not cover the entire effort, the intellectual and artistic capacities involved and the outcome.

Another side of research in the fields of architecture and urban planning refers to **efficiency**. Several research themes and activities could give an impetus to society development. This thing implies not only the expanding of knowledge level but also the effectively scientific contribution able to solve current issues of territory planning, various stages of sustainable development, the

problem of cultural landscape, heritage protection. Prof. Alexandru Sandu mentioned several research programs that cost billions of Lei, yet unknown or left aside by the very commissioners.

The workshop, carried out at high scientific standards, met its goal. The information, viewpoints, opinions, and suggestions enhanced the debate on the topic. Several ideas concerning future collaboration among Romanian architects and those from Diaspora in matters of general research and design research emerged during the proceedings. Here are some of the proposals:

- to continue the collaboration between the Restoration School from Chaillot (Paris) and the Department of Architectural History, Theory, and Heritage Conservation from IMUAU;
- to invite Romanian architects from the Diaspora to participate into the diploma boards;
- to take Romanian students in the studios of the Romanian architects teaching abroad for practice;
- to develop joint research programs in priority fields like modernization of housing developments built in the last five decades;
- to build a database able to record the Romanian architects from the Diaspora and, if possible, to organize a meeting.

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