

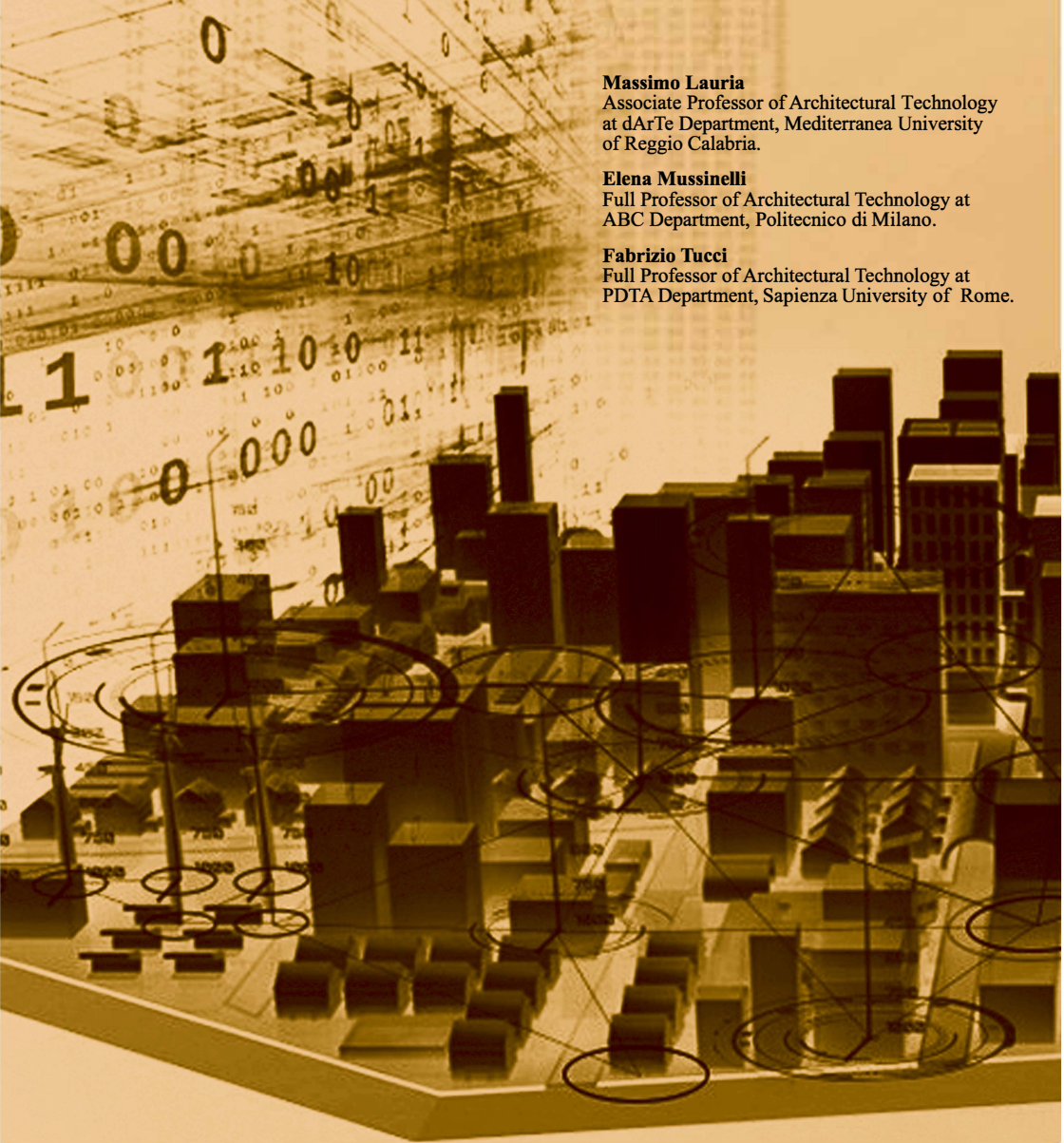
# Producing Project

edited by  
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The transformations created about the design activity by the several challenges started by the economic crisis, climate change and environmental emergencies, together with the impact of the Web and ICT on social and productive systems, highlight many critical issues, but also significant prospects for updating concerning places, forms, contents and operating methods of “making architecture”, at all levels and scales.

In this context, the cultural tradition and disciplinary identity of Architectural Technology provide visions and effective operating practices characterized by new ways of managing and controlling the process with the definition of roles, skills and contents related to the production chains of the circular economy/green and to real and virtual performance simulations.

The volume collects the results of the remarks and research and experimentation work of members of SITdA - Italian Society of Architectural Technology, outlining scenarios of change useful for orienting the future of research concerning the raising of the quality of the project and of the construction.

# Producing Project

edited by

**Massimo Lauria  
Elena Mussinelli  
Fabrizio Tucci**



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## 1.18 PROJECT PRODUCTION AND UNIVERSITY. VALUES, CONTRADICTIONS AND OPPORTUNITIES

*Oscar Eugenio Bellini\*, Andrea Tartaglia\**

### **Abstract**

*In addition to education and research, University should pursue the “third mission” to disseminate the acquired knowledge for the development of the Country. Facing a demand for design quality, innovation of models and processes, in the past the academic world has contributed to implementing the effective disciplinary and professional tools, transferring innovations in the professions and sharing what was taught to respond to the needs of the society. Today this does not happen anymore and in the Schools of Architecture the enhancement of knowledge, which mainly passes through the architectural project, assumed as a research tool, remains substantially prohibited by inappropriate and contradictory legislative devices.*

*Keywords: Third mission, Profession, University as service, Project*

### **Towards innovation in the National and European system**

The most recent National and European policies aimed at socio-economic development highlight the need for a continuous and systemic relationship among production, industry, services and research, avoiding barriers between public and private actors, to create synergies and interactions that contribute to innovation and scientific and technological advancements.

University should not only participate in the construction of connections between transformations of the productive system and the world of knowledge and research, but it must take a completely global perspective “contaminating” itself with the economic system of the Country (Roggero, 2018).

As with the “highly specialized competence Centres”<sup>1</sup>, whose institution was financed for the two-year period 2017/18 with 40 million euros or with the intro-

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<sup>1</sup> Introduced by the “National Plan Industry 4.0” of the Ministry of Economic Development, the “Highly specialized competence Centres” are designed as public-private partnership structures which, in addition to guidance and training activities for companies, must participate and promote innovation projects, industrial research and experimental development.

duction in the Code of public contracts of the “partnership for innovation” which, in coherence with the EU indications, pushes innovation through initiatives supported by public finance. In the early Nineties, Henry Etzkowitz had identified in academic research the necessary element to stimulate the development of territorial systems, theorizing the model of the “triple helix” in which the triad University, Industry, Public Administration had to originate a new knowledge society in place of the industrial one (Etzkowitz, 1993).

In Italy, University seems to find insurmountable obstacles in the field of urban planning and architecture which is characterized by a pulverized professional structure that makes significant investments in research and development impractical. Some regulations limit the research institutions and the University to deal with the socio-economic context, preventing the transfer of the theoretical and experimental results. The opportunity to overcome the dichotomy between University and Profession is also considered as a problem of the single professor who aims at subtracting work opportunities from those working in the profession. On the opposite, the question is if this does not limit the possibility of innovating processes and products in the project and construction sector, slowing down the development of the Country, as has already happened not long ago. But also, if, today the University still has the skills and tools to be “engine” of innovation for the socioeconomic system, as it has already happened in moments not far away. Recent seasons have seen some of the most brilliant exponents of the Italian technological design academic world stimulating innovation in the “real world”. In the Eighties, in the field of industrialized building production, the design of modules and the construction with panels in Architecture - according to the principles of maximum integration between the time of design and production - we can refer to the prototype of the Post Office.

In the Nineties, the research “Meta-project for hospital buildings” coordinated by Roberto Palumbo had marked a gap in the definition of technotypological solutions in health care buildings with evident repercussions on projects financed by the national construction program for health buildings (Article 20 of Law 67/88). In the 2000s, the collaboration of Romano Del Nord with the Ministry of Education, University and Research was virtuous for the definition of normative standards and models to answer to the needs of student housing. These studies have merged into the technical annexes of the 338/2000 Law on University residences. In more recent times, the reference can go to the rich repertoire of “Studies, Researches and Projects” of Technology of Architecture and Territory promoted by the TEMA Laboratory (Technology Environment and Management), coordinated by Fabrizio Schiaffonati at the BEST Department of Politecnico di Milano, which exemplify perfectly what it means to work between research and profession (Schiaffonati et al., 2015).

A season of innovation and experimentation from which the area of the Architectural Technology must restart in order to open up and re-establish its action, not only in the Schools of Architecture but in society.

Moments that had the undisputed merit of having operated a «continuous verification of the validity of the theoretical-practical armament of the discipline with respect to the evolution of the “project demand” expressed by the operators» (Karrer, 2015: 28) promoting results and recognizing social, economic and scientific value to the discipline.

## **Project and University research**

The Architectural project represents a plural, dialogic and multiple instrument. The only one able to anticipate environmental transformations and able to manage the challenges of the quality of cities and urban life, of multi-ethnic societies, of economic and social responsibility, of climate change, of the overcoming of the dependence on fossil energy and of the needs of knowledge and progress. Its production is a process of scientific research, which progresses with theoretical reflection and finds concreteness in the experiential and pragmatic comparison. The only one that allows the interpretation of the complexity of reality, also in terms of problem solving (Losasso, 2011).

Although in our Country there is a regime of incompatibility between profession and University teaching, by virtue of this principle, there is a growing determination by the Schools of Architecture and the related Departments in proposing the Public Administration with contracting<sup>2</sup> to carry out activities of study, analysis, evaluation, but not design, construction and urban planning, based on procedures that often take on “creative” connotations and deal with instrumental partitioning of the services to be entrusted. An attitude that is legitimate due to the didactics and research fields of many Scientific Sectors, in which the production of the project coincides with the content itself of the discipline and becomes the occasion to celebrate the social value of the project and to seek the “common good”. On the etymological level, the terms profession and professing own the same derivation, which emphasizes the public aspect: *pro-fateor*, to say publicly, or assume a public responsibility. The University professor, as well as the professional architect, - even more if the two roles overlap - should ask not to provide an abstract knowledge but to act with a “spirit of service”: public subject in law and duty of employment of responsibility. The University, a public institution that does not allow conditioning and makes autonomy of thought its essential prerogative, should not be allowed but it should be obliged to work in this direction, carrying out the role of “University as service”.

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<sup>2</sup> In Italy, 50% of the total amount of activities carried out on behalf of third parties comes from 10 Universities. The share of financing on behalf of third parties on total research funding varies widely between disciplines, partly due to different external financing opportunities, partly due to differences in competitive public funding. This share of total funding varies between 57% for the scientific area linked to the Project (Civil Engineering and Architecture) to 22% in the Area of Physical Sciences (ANVUR-VQR-2004-2010).

Idea theorized in the Eighties by the Jantsch Report (Karrer, 2015), which gives credible and scientifically valuable answers to civil society, interacting with public operators. The University is not a company founded on the principles of productivity and profit. Its efficiency is measured by the indicators of the “Third Mission”, as a set of “activities with which the Universities enter into direct interaction with society” (ANVUR, 2014). For the accumulation of generic quantities, or the creation of a product that of those quantities is the automatic result. But a concept of broad meaning, perhaps even of difficult interpretation, which although including activities of academic productivity, in terms of technology transfer to industry, provides for the creation of common, public goods, with social content and civil progress and public engagement that can be part of an expanded definition of the project. A place in society that is not simply an answer to needs but it is able to anticipate and direct them (ANVUR, 2017).

An incompatibility of principle, penalizing and instrumental, which juxtaposes professional orders and University, preventing the latter from carrying out any project action. The University’s commitment to a real demand for programming, design and project has already led - as we have already seen in the recent past - to the implementation of disciplinary and professional tools, with the transfer of innovations to the advantage of the world of professions and the possibility of matching what is taught with the needs of society. This is because, also by the project, the University has the duty to transfer, in addition to theories, operational skills, to propose direct experiences and to develop models and methods that can be transferred and replicated (Tartaglia, 2018).

Researching the quality and effectiveness of a professional education on the architectural project, long recognized abroad<sup>3</sup>, has recently been reaffirmed by the CNAPPC and the CUIA. They have underlined the need to establish an indissoluble relationship between teaching and project «practical and application activities in the laboratory and on the territory integrated with applied research and knowledge transfer», in «osmotic relationship with the profession, as expressly indicated by the EU Directive». This in the context of «strengthening the applicative professional dimension through [...] the valorisation of the project experimentation, of the role of the research laboratories in the education, in particular the master and of the third level», in order to activate «occasions of comparison and division with the themes of the development of the cities and regions that see a new and more intense integration between education, research and profession» (CNAPPC, CUIA, 2017: 13, 20).

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<sup>3</sup> «In order for teachers of architecture to guide students in achieving their capabilities as architects, it is necessary for teachers of architecture to have close contact with professional practice. It is therefore desirable for the majority of teachers to be either practicing architecture or to have substantial practice experience. It is advisable that a teacher who practices architecture should be encouraged to do so, provided that this activity does not impede the academic performance of that person» (UIA, 2002: 19).

## Perspectives

Within the articulated national legislative framework, on a formal level the methods for resolving the quarrel University/Profession relationship appear clear. The issue on the political and academic level is more delicate, despite the pressures that the Scientific Societies and the disciplinary groups, have been promoting for some time. If considered from a temporal perspective, the incompatibility between teaching and free profession leads to questioning certain issues. The first concerns the risk of the lack of credibility that the Italian Schools of Architecture may have on the national and, even more, international education market. The ability to call professors, who discuss the project for practicing it, can only produce a greater appeal on students.

Secondly, the inability to exercise the professional design within the University is likely to divert the research interests of many Scientific Sectors on purely theoretical-methodological aspects or pure analysis, diverting the interest from the practical and operational ones, exacerbating the academic approach and exasperating specialism, which still today marks the gap between University and real society. The result is a drift towards design education that is completely detached from concrete issues, whereas, in contrast, University should build a constant relationship with reality to change and improve it through innovative proposals and experimental trajectories.

Another consideration concerns the loss of cultural and scientific centrality that the Schools of Architecture are undergoing in the debate on the themes on the complexity of the architectural project. A drift that is taking place in favour of the professional associations, which are taking roles that do not compete to them and for which they do not always have the necessary skills.

More dramatic could be the consequence in relation to the progressive growth and affirmation of a generation of professors trained outside the gym of the architectural project. Professors and researchers not experts and prepared on the technical application aspects that the discipline imposes<sup>4</sup> and, therefore, unable to dialogue with contract professors who, borrowed from the profession, speak the language of “doing”.

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<sup>4</sup> The possibility or not of exercising the project risks producing discriminations in the evaluation of professors who are allowed to experiment with the project in comparison to those to which it is formally prevented. Think of the art. 2 of the Ministerial Decree 89/2009 which, as part of the assessment of academic qualifications, provides that «the selection boards of the procedures [...] analytically performs the comparative assessment of the qualifications of the candidates on the basis of the following elements duly documented [...] realization of project activities in relation to those scientific-disciplinary sectors in which it is foreseen». And to the DM 8/2010 “Guidelines VQR 2004-2008” establishes: «they are taken into consideration for the evaluation of the panels [...] compositions, drawings, designs, performances, organized exhibitions and exhibitions, artefacts, prototypes and works of art and their projects». From this, it is clear that the legislator, although in a non-explicit form, has considered the practice of planning for those Scientific Sectors in which it is planned.

Within a few years, in the Schools of Architecture we will face the paradox that the professors will educate on pure theory, not being able to count on practical experiences and not having never exercised and verified the construction of the building.

A bleak and partly incomprehensible picture, where the only way out seems to be the commitment to build new synergies and interactions with those who deal with the transformations of the environment outside the University, at different levels and degrees, to avoid a further dangerous and in some ways irreversible “peripheralization of the project” in the Country (Scoccimarro, 1987).

## **The real challenge**

The challenge to innovate the architectural project, as a highly complex technological act, characterized by articulated sectors and many different production sites, can represent an opportunity for redeeming the quality of the profession and for creating adaptive and resilient urban realities (Schiaffonati, 2017). This requires the modification of the current relationships between academic and professional dimension, to project them towards a strategy for the architectural system and towards new collaborative forms (CNAPPC, CUIA, 2017). The need is to recover, in didactic terms, an approach based on clear competences, through a culture of polytechnic matrix - as a superposition between humanistic and scientific technical cultures - to lead to an education able to assure the student/architect autonomy and intellectual flexibility, with which to free oneself from that “generalist” dimension that connotes degree courses called specialized instead. In fact, «we are witnessing a progressive activation of degree courses, especially master degree courses, which take highly characterized titrations with respect to emerging themes or intervention scales, diverting the attention from the project as an instrument/process that the professional must be able to coordinate in all its phases» (Tartaglia, 2018: 92).

A state of affairs weighed down by having translated the theme of the technological level of the architectural project to the purely technical one, progressively diverting attention to the importance of the quality of the design product as a set of contents and actions, and to focus exclusively on the interest in the quality of the design process. This has made the role of the architect as “director” of the project, in the face of a segmentation of knowledge, so that the seismic, energetic, environmental, landscape problems, etc., have become independent variables, out of a systemic logic, to be addressed in cascade during the executive development of the project.

It does not mean opening up to a clash between the different skills that involve the project, but giving just the right value, in inter and transdisciplinary terms, to the specialisms that characterize the training paths that lead to the exercise of the profession.



Disciplines often integrally present in the Departmental structures and which must be calibrated on the basis of specific education paths for the professions, and which can lead to an effective development of skills and abilities, so as to understand the need to overcome the ideational moment as a single training action, accentuating the aspects of feasibility and constructability.

A never-ending story that can only be closed if politically and culturally sustained by all the involved subjects, avoiding protectionist and corporatist logics, which leads to not taking the project as a formidable tool for the construction of the common good.

It is necessary to go back to the field research, to the interlocution with the needs of society and to the interaction with the economic world and with the production sector, getting involved and getting hands dirty because «a relationship between teaching and research in the modern University is one of international concern» (Prosser, 2005: 3).

Failure to overcome corporate upheavals and the absence of a closer dialogue between who teach and who practice, as well as penalizing society, impoverishes the formative quality of future project managers, called to face a labour market increasingly international and competitive. A gradual process that can only be carried out when the Schools of Architecture have been able to improve their real abilities, demonstrating in fact, and not only in their intentions, their potential, without claiming generic rights to the practice of profession, but demonstrating, with expertise and scientific knowledge, innovative skills and not a substitute for free profession. Claiming with the results a role of a competence centre able to simultaneously put human and scientific resources in action on the many aspects of the architectural project. It is conceivable to make the Architecture departments responsible for taking care of the project quality questions fielding a disciplinary armament of theoretical and practical nature, based on a high capacity for scientific research and innovation, which is not always available in the professional world. This requires the University to change attitudes by identifying systems of rules and formats of response tools that allow it to “free up” the energies it has, arriving by example to provocatively “give” (abroad) quality projects on which to open the comparison with civil society. The hope is to overcome that academicism that still permeates many universities returning to offer a recognized and recognizable contribution to the community transferable in construction. A return to an integration between the University world and the real world, which is measured and applied with and in the territory, taken as an expression of the demand and supply of research, development and education. An area where the project cannot be taken as an action, but as a context (cultural, economic, etc.) to stimulate “mentality” and “attitudes” useful to transform ideas into reality and make them become engines of development (Bellini, 2018).

A «scientific design research», which can provide systemic solutions, and not only formal answers (Del Nord, 2016).

But also an opportunity to overcome the non correspondence between demand and format to the response to the need for a project, and on the one hand it shows an established inadequacy «of the consolidated theoretical and practical armament and, on the other, laziness, at the limit of inertia, of demand operators, especially public/collective, to the innovation of processes and products» (Karrer, 2015: 31). A context in which the project “made by technologists” is characterized as an activity of knowledge, prefiguration and anticipation of the possible. A place of prediction of reality, of formulation of scenarios and feasible visions, based on actions that contemplate, at different levels, the integration between knowledge and education, also on the strength of a plurality of methods that refer to the “project based” didactic studies. Complex actions, which arise *hic et nunc* from the world, and which condense and outline the achievement of new and better horizons of life.

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