retroactive research
ARCHITECTURE’S CAPACITY TO CHALLENGE AND EXTEND THE LIMITS OF OTHER DISCIPLINES
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CONGRESS PROCEEDINGS
Retroactive Bachelor: Not for architects only

The reform of the bachelor in Architecture at Politecnico di Torino as a case study of critical pedagogy toward a new opportunities for architectural graduates

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Synopsis

In Europe many graduates in architecture leave the architectural sector, and the closely related sectors as building industry, planning field or interior design, immediately after their studies or after some years of professional practice. This paper presents two different actions: the first one is aimed to counteract this trend reforming the bachelor program in architecture in order to form architects able to better fitting the market demand, not only in the architectural sector, the second one is a research proposal to qualitative analyze the described trend in order to exploit the potentialities of architectural studies in other sectors such as creative industry, communication, management, entrepreneurship and many else. Both actions start from a retroactive approach considering the importance of the impact that architectural education can have in multiple fields far from the building sector through the interdisciplinary approach that characterizes the design pedagogy.

Key words: Pedagogy, Bachelor, Opportunities, Creative industry, interdisciplinary approach.
1. Retroactive Architect

Italy has one registered architect out of four hundred inhabitants, while China has one registered architect out of four hundred thousand inhabitants. This disproportion looks even bigger if it’s compared with the building sector activity in the two countries. In the meanwhile a significant proportion of graduates in architecture, as well as registered architects, works in sectors far from the architecture practice and building sector. It will be easy to say that this second phenomenon is due to the scarcity of jobs in the architectural field, but this option cannot explain why so many students are choosing the architectural studies since they perfectly know the disproportion between the number of architecture graduates and the jobs available in the architectural sector. The challenge is to imagine that students choose the architecture education because they guess that this can be a good training for others career opportunities. New opportunities as “retroactive architects”, as we might define these trained architects for their impact on sectors far from architecture, where they can deeply innovate in term of methodology and approach, through their “architectural” skills, combining technical knowledge, artistic and social sensibility with soft skills related with team working, complexity management and multidisciplinary approach.

2. Multidisciplinary approach: twenty years’ tradition of the school of Architecture in Torino

The architecture program, that follows the Bologna’s process guidelines, at the Politecnico di Torino is strongly multidisciplinary. All the ateliers, both in the bachelor and in the master program, consist of more than one discipline, often more than three. This approach, quite uncommon in the Italian panorama at that time, has been very appreciated by teaching staff as well as from the students. The multidisciplinary nature of the design experiences gives the students a small overview of what the professional life is, but, at the same time, it makes them aware about the influence that architectural design approach can have on a wide range of societal phenomenon and other fields such as planning, structural engineering, constructive industry, history and restoration. Growing in the multidisciplinary perspective, students acquire the capability of dealing with others disciplines and others professional profile and very often develop their interest for topics situated on the boundaries in between architecture and the disciplines mentioned above. In this frame the Bachelor was defined as “professionalizing”, giving direct access to the profession. In Italy, actually, a professional title, “junior architect”, is delivered to bachelor’s graduates who pass specific and very selective exam.

3. The new Bachelor in Architecture: not only for architects

The project for the new Bachelor in architecture moves from two main observations. Firstly, nearly 90% of the students continue their studies\(^1\) attending a master program. Therefore the bachelor should be no more professionalizing as it used to be from the Bologna’s process. Twenty years after Bologna’s reform it’s possible to observe that in Italy very few bachelor

\(^1\) XIX Rapporto Alma Laurea - http://www.almal Aurea.it/
graduates become registered junior architects, as their career perspectives are not really satisfactory. 20% of them are still unemployed five years after the bachelor diploma. This data show how the bachelor needs to be considered as a fundamental degree to be followed by a master degree. In this frame, the Politecnico of Torino conceived a new Bachelor aimed at training students to face complex phenomenon and concepts giving them strong fundamental knowledge. Therefore bachelor in architecture focus on spatial and formal issues through their relationship with social, constructive, technical and historical issues. The three years of the program are centred on five ateliers, one for each semester excepted the first one dedicated to fundamental knowledge, that deal with different topics with an increasing level of complexity. The first year atelier explores the concept of space and the role of representation in its conception process, as well as the constructive meaning of architectural space. During the third semester students deal with territorial scale exploring the interaction between architectural design and urban planning, immediately after, in the fourth semester they undertake a design experience where architectural design, building construction and structural engineering come together. The fifth semester is dedicated to the theoretical insight with the atelier on architectural theory directly connected with the parallel atelier centred on architectural and urban history. Finally, in the sixth and last semester, students are asked to choose their atelier among a wide range of ateliers offered by the school. Each atelier proposes the combination of architectural design with one or two different disciplines considered as an aperçu of future, possible, study programs. Each atelier can be freely combined with a selected list of theoretical courses to build up a “cluster”, namely a synergy between design, technical issues and theoretical insights on specific interesting topics.

The design of this new program clearly aims at developing soft skills as critical thinking, autonomy, interdisciplinary approach, management of complexity. Design training is a powerful tool in developing these abilities, together with spatial sensibility and technical awareness, producing a graduate able to get oriented in the master programs not only directly related to architecture. The acquired competences are also valuable in other professional sector.

4. Architecture graduates and their “Afterlife”: a research program to follow up architecture European graduates

A growing body of evidence suggests that a significant number of architecture graduates are increasingly likely to join other industries or assume other roles than become practicing architects. In addition to this, reports suggest there exists a mismatch between the skills that architecture students are taught and those demanded by industry. The full extent of this phenomenon at EU level is unknown as are the implications for the future academic structure of architectural studies and their relationship to the industry. The research proposal, that as a part of a team within the EAAE’s Education Academy we have submitted for European funding, seeks to address this missing information by capturing and analysing the professional destinations of EU architecture.

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2 XIX Rapporto Alma Laurea - http://www.almalaurea.it/
graduates including those that failed left their courses without qualifying. The main aims of the research proposal are:

1. To map the extent to which this phenomenon extends across Europe, EU members states, regions and countries including The UK, Belgium, Italy, Croatia, Spain, France, Germany, Portugal, The Netherlands, Greece and Sweden.

2. To pinpoint which industries architecture graduates are migrating towards, and their scale of influence within these sectors.

3. To identify where sustainability and digital skills rank within the skills identified as most transferable between the professions captured within the study.

The hypothesis underlying the research is that architectural education might be considered as an optimal training to work within the creative industries sector and in other sectors. The creative industrie refers here to a range of economic activities which are concerned with the generation or exploitation of knowledge and information. Howkins' creative economy comprises advertising, architecture, art, crafts, design, fashion, film, music, performing arts, publishing, R&D, software, toys and games, TV and radio, and video games.

5. Bibliography
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Biography

Michela Barosio. Researcher of Architectural and Urban Design at the Politecnico di Torino. She holds a PhD in Architecture and building Design from Politecnico di Torino. She has been in charge of interdisciplinary Design Laboratories for about ten years, during which she investigated teaching methods able to interlace the themes of architectural composition with disciplines such as restoration, architectural technology and finally structural engineering, stimulating students to the importance of multidisciplinary approach to the project from the early design stages. She is member of the Teaching Academy of the European Association for Architectural education. Her research is mainly focused on three axes: Design teaching methods, Cultural landscapes, and Urban regeneration of industrial dismantled areas, specifically related to retail developments. Tel. +39 340/49.89.328. E-mail: michela.barosio@polito.it