

Teaching Project of Architecture in Portugal: Future Perspectives and the Revolution of New Generations

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Abstract—As teachers and researchers, we often find ourselves grappling with a central question about what it truly means to teach project in architecture in Portugal in the 21st century. It is a question that transcends the simple transmission of technical knowledge or even the sharing of our personal experiences. Rather, it is about developing a teaching pedagogy that responds to and reflects the profound social, environmental, and technological shifts we are currently navigating. Teaching architecture in Portugal today is not a mere continuation of tradition; it is, in essence, a living laboratory of innovation. Each new generation of students enters our classrooms with a hunger not just for design techniques, but for meaning—seeking to understand the role they can play in reshaping our physical and cultural environments. They are not passive recipients of knowledge, but active participants in the creation of a more sustainable, ethical, and thoughtful architecture.

Keywords—Architecture, heritage, memories, project studio, teaching.

I. INTRODUCTION

WHAT challenges us most as educators is realizing that our role has evolved. We are no longer just guides through historical precedents or methods of construction. We are mentors, helping students navigate the complexities of a world that demands more than buildings; it demands solutions—for housing, for urban decay, for the climate crisis. And as teachers, we must embrace this shift. We must allow our pedagogy to become more fluid, more interdisciplinary, encouraging students to see architecture as a tool for social transformation.

We often feel the weight of this responsibility, not only because of the urgent issues we face globally but because we know that within each of our classrooms sits the potential for true change. It is inspiring—and, at times, daunting—to recognize that the future of architecture in Portugal, and even beyond our borders, is shaped by the students we teach today. They will be the ones who challenge conventions, who adopt new technologies with a critical mind, and who face the environmental crises head-on with creative solutions rooted in the education we provide. In this context, we firmly believe that teaching architecture must be a dynamic process, constantly adapting to the evolving world around us. We must foster not only technical excellence but also a deep ethical commitment to the world we are shaping. Our classrooms are spaces where innovation is not only encouraged but necessary—where students are empowered to challenge the status quo, to question the way things have been done, and to envision a future where

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architecture serves the greater good.

II. FORMATION OF THE FIST ARCHITECTS IN PORTUGAL: OUR BACKGROUND

The formal teaching of architecture in Portugal dates back to the 19th century, with the establishment of the “Escola de Belas-Artes” in Lisbon observed in Fig. 1 and the “Escola de Belas-Artes” in Oporto illustrated in Fig. 2. These institutions, inspired by the model of European academies, sought to train architects according to the principles of fine arts and classical compositional rules, emphasizing a solid technical and aesthetic foundation. The curriculum was largely structured around the study of classical proportions, symmetry, and harmony, reflecting the predominance of neoclassical canons in the education of architects [2].



Fig. 1 Belas Artes School, Lisbon 1918

Throughout the 20th century, and particularly following the end of the Estado Novo dictatorship (1933-1974), architectural education in Portugal underwent significant transformations. Previously centralized and rigid in their pedagogical structure, the schools began to adopt more dynamic curriculum and to incorporate new approaches and international influences. The Modernist Movement, in particular, had a profound impact on the revision of teaching methods, challenging the traditional values that had been perpetuated by the Fine Arts schools. The influence of architects such as Le Corbusier, along with the currents of Brutalism, with its emphasis on material expressiveness and formal simplification, gradually began to be integrated into educational programs.

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Fig. 2 Belas_Artes School of Oporto

This process of pedagogical renewal was also a response to the political and cultural context of the time, marked by democratic openness and increased contact with international trends. The architecture schools in Lisbon and Oporto, later transformed into university and faculties, restructured their curriculum to incorporate greater flexibility and foster creative experimentation, in line with the demands of a changing society. As a result, architectural education in Portugal shifted away from its exclusive focus on classical principles, opening up to a multiplicity of approaches that reflected the social, technological, and cultural transformations that characterized the second half of the 20th century.

With the April Revolution of 1974, Portugal transitioned into a new democratic era that profoundly transformed the country's higher education landscape. The university system was democratized, allowing for increased participation from both faculty and students in the governance and direction of academic institutions. Within this context, the teaching of architecture benefited from newfound academic freedom, enabling a departure from previously rigid curriculum. This period of change facilitated the emergence of new pedagogical approaches that emphasized a stronger connection between architectural education and the social, political, and urban realities of the time. Architecture came to be understood as not only a technical discipline but a cultural and social practice, with growing attention to the built environment's impact on societal dynamics.

This era saw a critical rethinking of the architect's role, moving beyond the traditional image of the architect as a mere designer of buildings. Instead, architects were increasingly viewed as agents of social change, with a responsibility to engage with broader societal issues such as housing, urban inequality, and sustainability. The curriculum reflected this shift by integrating theoretical and critical perspectives from disciplines such as urban sociology, political economy, and the history of contemporary architecture, providing students with a more interdisciplinary framework. [3]

The modernization of architectural education in Portugal was further accelerated during the 1980s, following the country's accession to the European Economic Community (EEC) in

1986. This integration into the European framework brought Portuguese schools of architecture into closer contact with leading centres of architectural thought and innovation across Europe. As a result, Portuguese architecture programs increasingly embraced international trends, adopting innovative design methodologies, advanced technologies, and interdisciplinary research, while fostering a more global outlook. These changes not only reshaped the way architecture was taught but also expanded the scope of the profession, preparing future architects to address the complexities of contemporary urban and social challenges in an increasingly interconnected world.

III. GLOBALIZATION OF THE ARCHITECTURE TEACHING

The early 21st century brought about a significant phase of internationalization for architectural education in Portugal. A key turning point was the implementation of the "Bologna Process" [1] in Portuguese Universities in 2006, which restructured academic programs into a sequence of undergraduate and integrated master's cycles. This shift facilitated greater international mobility for both students and faculty, enabling wider participation in exchange programs and collaborations with foreign institutions. As a result, Portuguese architectural education became more aligned with European and global standards, fostering a new level of academic and cultural exchange [8].

One of the areas most impacted by these changes was the teaching of "architectural design", commonly referred to as "Project" within the curriculum. Traditionally at the core of architecture education, the design studio evolved significantly with the adoption of new pedagogical models and technologies. The Bologna reforms encouraged schools to update the "Project curriculum" to better integrate theory and practice, aligning the creative process with a more globalized and interdisciplinary approach to architecture. Design studios began to focus not only on conceptual and formal design but also on addressing "real-world problems", such as sustainability, urbanization, and social equity, all while considering local and global contexts.



Fig. 3 Project Classroom – 1st year

The expansion of curricular offerings in areas such as "Building Information Modelling (BIM)", "parametric design", and "digital fabrication tools" has further transformed the

teaching of Project. These technological advancements allow students to explore new methods of representation, simulation, and construction, bridging the gap between the conceptual phase and the technical realization of projects. The Project studio, which once focused primarily on hand-drawn plans and physical models, now integrates these advanced tools, encouraging a more iterative and data-driven design process. As a result, students are equipped with the digital skills required to navigate an increasingly complex and technology-driven profession.

In leading institutions such as the “Faculty of Architecture at the University of Lisbon (FAUL)” and the “Faculty of Architecture at the University of Porto (FAUP)”, the “Project studio” has been redefined as a platform for experimentation and interdisciplinary collaboration. These faculties have established themselves as centres of excellence, where the design studio serves as a critical space for exploring not only architectural form but also the environmental, social, and political implications of design decisions. The focus on “sustainable construction”, “urban regeneration”, and “social responsibility” has become central to the Project studio, reflecting a broader shift in the discipline towards a more socially engaged and globally conscious practice as we can observe in Fig. 4.



Fig. 4 5th Grade Classroom - Presentation of a Project in real context linked to the Research Project of the Teacher, Investigator and Author of this Research Article

The internationalization of architectural education has also brought new perspectives to the Project Studio. The increased presence of international students and visiting professors has enriched the academic dialogue, fostering a more diverse set of design approaches and cultural references. This cross-pollination of ideas allows students to challenge traditional

paradigms and adopt more innovative and context-sensitive solutions in their projects. Furthermore, international collaborations, design competitions, and workshops have become integral to the design studio experience, offering students exposure to cutting-edge research and practices from around the world.

Overall, the teaching of “Project” in Portuguese architecture schools has adapted to the demands of the 21st century by embracing a more global, interdisciplinary, and technology-oriented approach. As these institutions continue to evolve, they prepare future architects to engage with the complexities of contemporary society, blending creativity, critical thinking, and technological proficiency in the design of a more sustainable and equitable built environment.

IV. THE ROLE OF NEW TECHNOLOGIES

The digitization of architecture has been one of the primary drivers of transformation in architectural education over the past few decades. Software tools such as “AutoCAD”, “Revit”, and 3D modelling programs like “Rhino” and “SketchUp” have become essential to the design process, revolutionizing how students conceptualize, develop, and represent architectural projects. These tools enable more precise and efficient workflows, allowing students to explore complex forms, simulate building performance, and visualize spatial environments with unprecedented accuracy. [4]

Moreover, the integration of emerging technologies such as augmented reality (AR) and 3D printing has further transformed architectural education. AR offers new ways of visualizing projects in real-world contexts, enabling immersive experiences where students can interact with their designs at full scale. At the same time, 3D printing provides a tangible method for rapidly prototyping complex models, allowing students to materialize their ideas in physical form. These technologies foster a deeper understanding of spatial relationships and construction techniques, enhancing both the conceptual and practical aspects of architectural education.

In addition to these advancements, social media has emerged as a powerful tool for students and professionals in architecture. Platforms like Instagram, LinkedIn, and X allow architects to showcase their work, share ideas, and engage with a global audience. This visibility not only enhances students’ portfolios but also facilitates networking opportunities with industry professionals, potential employers, and peers from around the world. Social media serves as a platform for collaborative discourse, where architectural concepts and innovations can be discussed and disseminated rapidly, breaking down geographical barriers [9].

Furthermore, “online collaborative platforms” and the rise of virtual conferences and workshops have expanded the global reach of architecture students and professionals. Digital tools facilitate real-time collaboration on design projects, enabling students from different parts of the world to work together on interdisciplinary initiatives. This global connectivity broadens the scope of architectural education, allowing students in Portugal to engage with international peers and experts, participate in global competitions, and access a wider range of

academic and professional resources. As a result, the education of architects in Portugal has become more interconnected and globally oriented, preparing graduates for an increasingly international and digitally-driven profession.



Fig. 5 Icons of Social Media

V. FUTURE CHALLENGES

Architectural education in Portugal faces considerable challenges, such as the need to adapt to a rapidly changing market and global competition. The economic sustainability of the profession remains a constant concern for recent graduates, as they navigate a landscape that can often feel saturated with emerging talent. In this context, educational institutions bear the responsibility of equipping students with the necessary skills, knowledge, and entrepreneurial mindset to thrive in a competitive environment [5].

A crucial component of this educational framework is the role of educators, particularly those who invest in their academic careers and specialize in the “Project Studio” discipline. These faculty members play a vital role in guiding students through the complexities of the design process, combining theoretical foundations with practical applications. Their expertise in various architectural methodologies, coupled with real-world experience, enhances the learning experience and prepares students to tackle design challenges effectively [6].

In the Project Studio [10], educators foster a collaborative and exploratory environment that encourages creativity and critical thinking. They mentor students in developing innovative design solutions, emphasizing the importance of context, sustainability, and social responsibility in their projects. Faculty members actively engage in critiques and discussions, helping students refine their ideas and learn from constructive feedback. This pedagogical approach not only hones students' design skills but also instills a sense of professional responsibility towards the communities they serve [7].

Despite the challenges within the architectural profession, Portuguese architecture schools continue to excel in nurturing creative, critical, and socially engaged professionals through their Project Studios. By providing a solid theoretical and technical foundation, these institutions prepare new generations of architects to confront contemporary challenges head-on. Emphasizing interdisciplinary approaches and practical

experience, the Project Studio curriculum encourages students to develop solutions that address pressing issues such as urbanization, climate change, and social equity.

As students engage with real-world projects and community-based initiatives, they cultivate a sense of responsibility toward the sustainable development of cities and communities, both in Portugal and beyond. This commitment to social and environmental sustainability is increasingly integrated into the Project Studio framework, ensuring that graduates are not only skilled designers but also advocates for resilient and inclusive urban environments. In this way, Portuguese architectural education remains a vital contributor to shaping a more sustainable future, empowering students to make meaningful impacts in their professional practices and society at large.

VI. CONCLUSION

In conclusion, architectural education in Portugal stands at a pivotal moment, shaped by its rich historical evolution and the pressing challenges of the contemporary world. As educators, we must embrace our role not only as transmitters of knowledge but as facilitators of a transformative learning experience that prepares students to confront complex societal issues through design. The emphasis on interdisciplinary approaches, technological integration, and social responsibility within the Project Studio framework equips future architects with the tools necessary to navigate the intricacies of a rapidly changing profession.

The globalization of architectural education has fostered a vibrant exchange of ideas, enriching the academic environment and preparing students to engage with diverse perspectives. As we face global challenges—such as climate change, urbanization, and social inequality—our responsibility as educators extends beyond the classroom, encouraging students to become advocates for a sustainable and equitable built environment.

Ultimately, the future of architectural practice in Portugal relies on our commitment to nurturing creative, critical, and socially engaged professionals who are not only skilled designers but also proactive contributors to their communities. By instilling a sense of ethical responsibility and fostering a culture of innovation, we can empower the next generation of architects to make meaningful contributions to society, shaping a more sustainable and just future for all.

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