

# INTERNSHIP PROGRAMMES IN ARCHITECTURE. TOWARDS A NEW MODEL OF RELATIONSHIP BETWEEN UNIVERSITY AND BUSINESS COMMUNITY

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## Abstract

This paper aims to recognise the possibilities that Spanish architecture students currently have for the acquisition of professional competencies collaborating as interns in an architecture office.

Since the approval in 2007 of the Royal Decree which establishes the new structure of the official university diplomas within the European Higher Education Area (EHEA), bachelor studies have progressively adapted to a new system based on a competence perspective, as a way to guarantee the learning of skills and abilities for the development of the future professional activity. The increase in the degree of employability of graduates should be a priority objective of the degrees. Thus, it is necessary to analyse the mechanisms that the different Spanish Schools of Architecture are currently developing to achieve this goal.

In Architecture, compared to other professions regulated by the Government, professional internships are optional, whereas in others as is compulsory. However, in other European countries such as France or the Netherlands, they are compulsory -in some cases, only if graduates want to exercise professional architectural on their own-. Many authors emphasise on the practical experience as one of the main tools to guarantee the success of graduates in their job search. The level of unemployment among recent graduates in Spain is at a 30%, three times higher than the European average, according to the latest CYD Foundation report. Undoubtedly, internships represent an opportunity to generate professional synergies, in which students can acquire complementary skills to face their future work with higher guarantees.

The research will start analysing the architectural internship programmes trajectory in Architecture after the adjustment of the Bachelor of Architecture to the Bologna Process. The first stage for this connection with the profession may appear from the teaching methodologies used. Traditionally, in Architecture, they have been based on problem-based learning approaches since students are required to make decisions, evaluate actions, and make judgments for architectural and urban designs. The link of architecture students with professional firms during their university education has also been a common practice. These internships have been linked to local companies and, more recently, to international internship programmes such as Erasmus or Faro. The trajectory of Arquia Foundation is highlighted, although its scope is quite low. Since 1999, this organisation has annually awarded around 15 and 20 internships for students and young architects. However, many of them were not included in the pre-Bologna curriculums.

The conclusions of this retrospective analysis will be confronted with the professional competencies currently required for architects, through the revision of the present regulatory framework. We will consider the European guidelines and the specific competence content included in the White Paper on Architectural Education. In this sense, the revision of the curricula of different Spanish Architecture Schools will be approached from various perspectives. The selection procedures of companies and candidates would be analysed, as well as and their degree of adaptation to the new professional demands and the existence or not of a remuneration. Finally, they will be compared to references in architectural internship programmes in other European contexts.

Keywords: Bologna process, Curriculum, European Higher Education Area, Internships, Schools of Architecture.

# 1 INTRODUCTION

Internship programmes are a fundamental element in the Higher Education System in Spain, regardless of the area of knowledge to which the graduates' degrees belong. In fact, they were regulated in the beginning of the 1980s with the intention of improving the practical training of students, especially in the final years of their studies. Its application would be gradually consolidated throughout the 1990s, when public institutions settled, gained skills and assumed the inexorable need to bring entrepreneurs and students together, to generate wealth and knowledge in the relations between the business and university worlds [1]. This union will be even stronger when the global economic crisis of 2008 led to a decrease in the budget of universities, which had required the search for alternative funding and training formulae adapted to the new socio-economic reality.

Globalization, an unavoidable feature for the analysis of any economic process, has significantly altered the patterns of research, development and production, that is, it has altered the foundational logic of the university as a small or medium-scale institution in which the transfer of knowledge takes place. At the same time, the abrupt settlement of globalization, increased by technological advances and the decrease in the time of transmission of information and interconnection, has generated new ways of understanding and organising world higher education. As a result of this global process, it seems possible to identify a strong trend towards the 'entrepreneurial' university [2], characterised by a behaviour and governance increasingly like those of the market. As a reflection of society, the university adapts to its fluctuations. Within the neoliberal global consensus that governs the Western economy, this serves both the market -by feeding on well-trained young people at low cost- and the university itself -by offering the possibility of expanding exclusively theoretical or 'classroom' training-. In this respect, there are voices against a supposed excessive presence of business in the university. This is a growing concern on the contribution of higher education to equity, community development and the common good.

## 1.1 European Higher Education Area and the Bologna Process

The Bologna process provided a common framework for the university studies in Europe. The background of the current framework has its origin in the Sorbonne Declaration, signed in 1998, by only four countries (France, Germany, United Kingdom and Italy) [3]. Several agreements, conferences and conventions followed, highlighting the Bergen Communiqué in 2005 [4] as the turning point from which the European Higher Education Area (EHEA) would start its materialization in a wider context. From then, the nations involved would assume these statements and transfer them to their own regulatory context. The first academic course in which the Bologna Process was settled was 2006/07. It would gradually be applied in Spain, being fully carried out in the academic course 2010/11.

### 1.1.1 *Specific regulations on the architectural profession and education.*

One of the main consequences of these implementations in the higher educational system was the establishment of a sequence of three levels, the so-called, European Qualification Framework (EQF) [5]. Before the Bologna process, the full qualification for the practice of the profession and construction management had to be acquired after 7 years of study, obtaining the status of Architects (level 7 EQF). From then, achieving this has been fragmented in two degrees as follows: Bachelor of 300 ECTS (level 6 EQF) and Master of 60 ECTS (level 7 EQF).

Furthermore, in particular, the architectural profession has also experimented a significant regulation process among the European territory. Its main goal was to consider the equivalence of the university studies and qualifications in the different countries, regarding the circulation of professionals. It is remarkable that the only main competency that has an exact equivalence among the whole EHEA is the exclusivity for architects in heritage intervention, although the methodology for acquiring this knowledge is variable [6].

The European Directive 2005/36/EC [7], and its amendment as the Directive 2013/55/EU [8], have established for all the European Union countries the system for the recognition of professional qualifications. It is defined only for a group of professionals, all belonging to health (human and animal) sector and, significantly, for architects [8].

### 1.1.2 Considerations on the Criteria for professional qualification. White Paper

As a state of the art on the issue we are analysing, it seems pertinent to address the document of *Criteria for Professional Qualification. White Paper* [9]. Framed in the EDUCATE project (Environmental Design in University Curricula and Architectural Training in Europe, 2009-12), it deeply reviews current national and international legislation on architects' education and qualification, specially focused on European cases, also counterpointed by other extra-European countries. It states that there exist several routes of academic education and professional training that regulate entry into the practice of architecture and the design of the built environment [9]. The main concern they all share is to guarantee a good formation for prospective architects, in both technical skills and raising awareness on social, heritage and environment issues. Nevertheless, cultural choice and teaching tradition seem to be the most important reasons that vary their choice on the curricula.

Since traineeship periods are one of the main features that nowadays characterise the studies of Architecture, considering their requirements (e.g. if compulsory, its supervision, etc.) and the precise moment in which they take place (during the undergraduate studies or after) are one of the main subjects in the architectural debate. In order to map the EDUCATE review, several criteria were defined to examine the different education schemes: professional title and domain of practice; accreditation of courses enabling qualification for each professional title; internship and professional training; professional examination; continuing professional development (CPD); and finally, other requirements for professional qualification and accreditation of curricula [9].

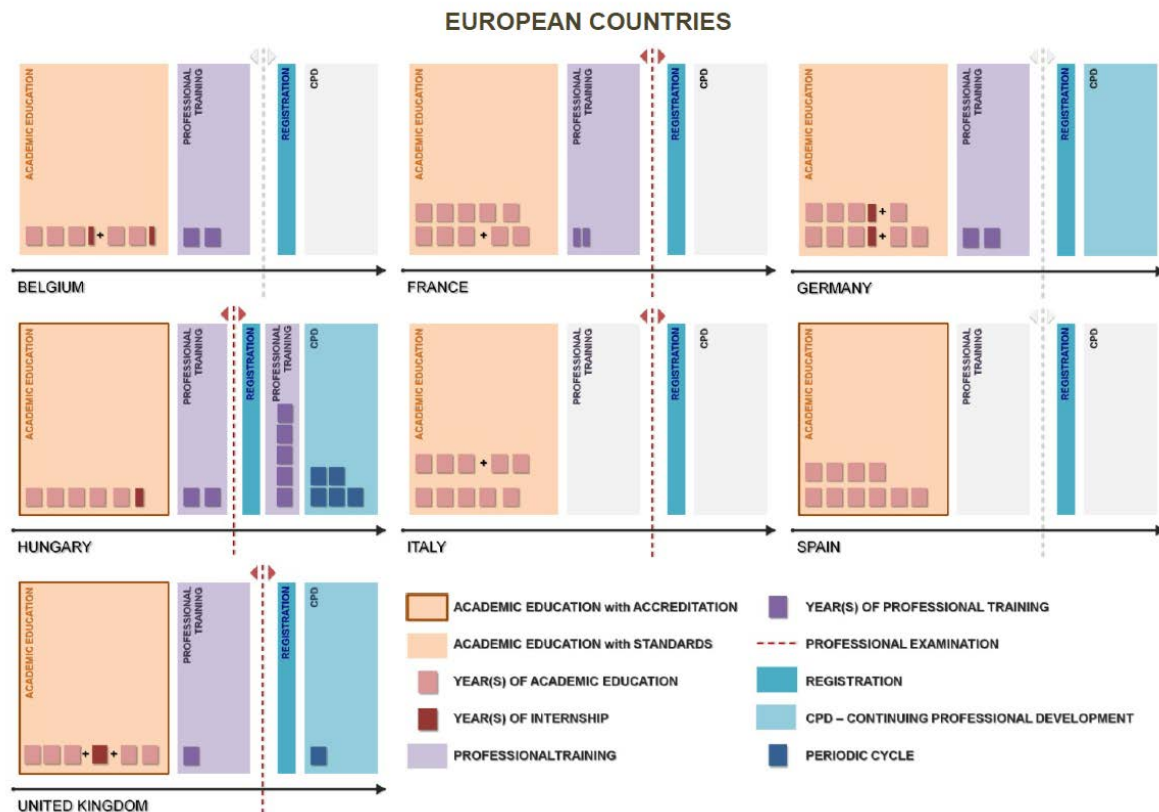


Figure 1. Selected Case Studies of Routes of Education and Training towards Professional Practice. The University of Nottingham, et al. *Criteria for professional qualification. White Paper*. Nottingham: Sergio Altomonte. 2012. Accessed 25 September, 2019.

In this chart, presented in the White Paper [9], Spain appears in the group of seven European countries contrasted (together with Belgium, France, Germany, Hungary, Italy and the United Kingdom). Grey traces show the lack of obligatoriness of each of the issues represented, whereas colour ones represent compulsory stages. The only feature that all countries concerned have in common is the necessity of architects to be registered in order to practice the profession on their own. This is closely related with the international regulation of the profession. It is noticeable that in the Spanish scheme the academic education is graded with professional accreditation, so that neither professional training is compulsory nor taking a professional examination.

## 1.2 Focus on the Spanish context

Although this tradition of practical and training curricula has always been present in health studies (such as Medicine, Nursery, Dentistry or Pharmacy), it was not until the state reform of higher education in 2007 [10] when in the Spanish context has introduced this global drive to synchronise social reality and university training mechanisms. One of the clear objectives of this new regulatory framework was to focus on improving students' capacities and competencies face to their professional prospective career. This was reached by implementing an ambitious framework of entrepreneurship programmes, scholarships, and continuing education and training agreements [11].

The result, after 13 years of implementation in the case of Spain, and up to 25 in countries such as the United Kingdom, is a substantial increase in the number of potentially enterprising students [12]. Similarly, the university-industry relationship has improved the competitiveness policies of the economic sectors, based on national and international challenges, regenerating the workforce and creating a working path in which the practices incorporated in university training is a crucial step in the consolidation of employment.

The strategies put into practice by most Spanish universities, with special emphasis on architecture and engineering studies, have consisted of schemes that allow students (or researchers, in the case of doctoral studies or teaching in general) to enjoy for several months internships (paid or unpaid, but achieving a ECTS load) or part-time jobs in a company or an industrial organization, in order to gain experience and exchange information that will be beneficial for their professional or teaching experience. In this specific case of area of knowledge, the main result of this plan could be a substantial increasement in the rate of insertion of students after graduation [13], as well as students who continue with their education or work consolidation in the case of doctoral students.

### 1.2.1 A specific case: Architecture

In Architecture, unlike other professions regulated by the Government, professional practices are optional, an aspect that seems logical due to the wide spectrum of professional opportunities and approaches to the profession, amplitude that has increased in recent decades thanks to the decrease in the volume of construction, and therefore, of possible professional jobs. In contrast to training in architecture in Spain, in other countries close to Europe these business practices are obligatory. It seems clear that the complementary experience provided by internships in companies is a useful tool to guarantee the success of graduates in their search for employment, even more so in a context of very high unemployment.

In the field of research, all national public universities have agreements to collaborate with external organisations and entities, whether public or private. According to academics, more than 50 percent of them have collaborated with a company, a member of the government or another university in their daily activities as teachers, researchers or advisors [14]. The signing of collateral agreements with these companies, of different nature and size (ranging from small architectural firms to multinational engineering firms), often allows the generation of complementary research projects that increase the precariousness of university budgets, making the task easier for research groups and departments. Complementarily, especially in technical departments, transfer strategies are developed, such as the generation of spin-offs, patents and licences.

## 2 METHODOLOGY

In this paper, we will carry out a comparative, quantitative and qualitative analysis of the different entrepreneurship modalities that have been included in the current curricula of the studies of Architecture in Spain, after the implantation of the Bologna process. There are currently 18 public Architecture Schools throughout Spain. However, this paper focuses on the case of the Higher Technical School of Architecture at the University of Seville. This educational centre has an extensive trajectory since it was created in 1958, being the third created in Spain after the Schools of Madrid (1844) and Barcelona (1875). Apart from the Bachelor, the centre offers one master's degree and five master of specialisation programmes. It is also a significant case due to the number of new students. In this academic year 2019-2020, 250 new students have started their studies. Only Madrid and Barcelona exceed this figure with more than 300 new students every year [15].

Once the different internship programmes have been described, the results obtained in the last five years are analysed. Their condition of compulsory or optative and whether they have assigned a ECTS credits load or not are defined as the most basic features to characterize most traineeship

programmes. The evolution of the number of students enrolled in each programme has been figured out. These data have been obtained from the different annual reports elaborated by the Sub-Directorate responsible for internships. This information is available on the centre's website. This study intends to evaluate too the presence of an economic remuneration, the different provenance of these funding (and its implications, mostly the application and selection procedures) and the number of students that can benefit from this. Besides, the opportunity of developing this first experience in a different city from the one of the universities of origin (whether it is in a national or a foreign context) is an asset that would be considered in our research. Obtaining at a glance the state of art of these factors that mark a significant difference for the students, in terms of equity of opportunities and resources provided, will allow us to extrapolate conclusions on the pertinence of these internship programmes.

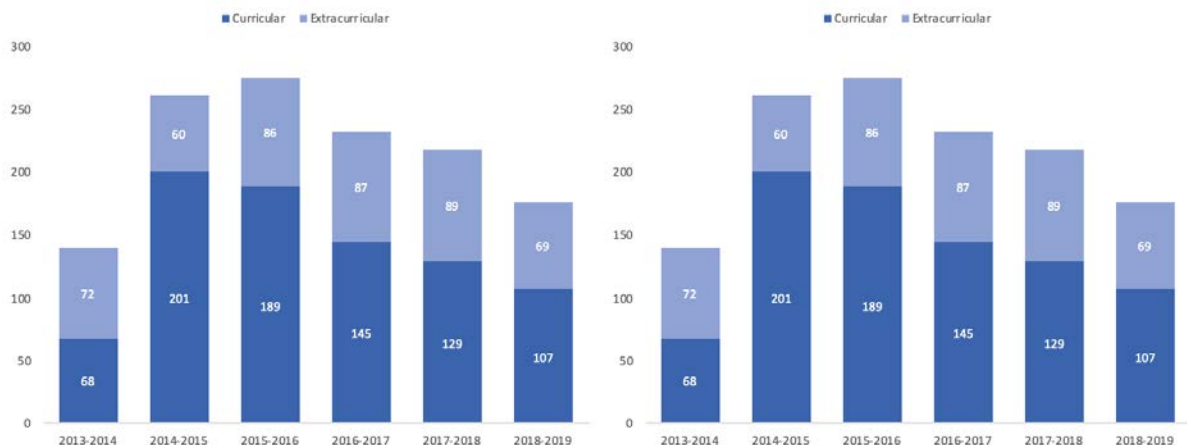
### 3 RESULTS

#### 3.1 Characterisation of the internships

##### 3.1.1 Compulsory/optional (curricular/extracurricular)

As previously mention, professional practices in Architecture, unlike other European countries, are optional in Spain. Mostly, bachelor and master students can choose between two main internship programmes. The first one is the so-called 'curricular internship'. These internships are integrated into the curricula of the Bachelor of Architecture as one elective course. In the particular case of the University of Seville, they are initially planned in the fifth year, but fourth-year students can also enrol. It a 6-ECTS course, which means that the duration of the internship should be 150 hours. These hours can be distributed throughout the academic year, ensuring compatibility with other subjects and assessments. The practices are carried out in a company or institution that has previously signed an internship agreement with the University. They are in charge of making the selection of candidates among the number of students enrolled in the course. Only bachelor students can choose this option.

The second one is the so-called 'extracurricular internship'. The duration of these internships should be between 200 and 600 hours. They are optional, and students from different levels (bachelor, master and postmaster programmes) can be enrolled. The only requirement is having been passed the 50% of the degree's ECTS credits. Students can choose from different internship offers. Then the companies make the selection among the candidates. This option permits students to be promotor of their own internship, since they can look for an intern position in advance. The only consideration is that the company signs the compulsory internship agreement with the University of Seville.



Figures 2 and 3. Number/ Percentage of curricular and extracurricular internships since 2013-2014. Higher Technical School of Architecture at the University of Seville. Source: Compiled by the authors from the annual reports elaborated by the Sub-Directorate for internships in 2016 [16], 2017 [17], 2018 [18], and 2019 [19].

Figure 2 shows the number of students enrol in the different internship programmes in the School of Architecture of Seville since 2013-2014. This was the implementation date of the fourth year of the Bachelor of Architecture. So, it was the first academic year that bachelor students could choose the

curricular programme. According to this information, we can recognise that the number of internships considerably increased in the first two years, especially curricular ones. While the number of extracurricular internships has fluctuated from 60 in 2014-2015 to 89 in 2017-2018, the curricular ones have dramatically decreased since 2014-2015 (43%). In this analysis, it is necessary to take into consideration the diminishing of the total number of students since the academic year 2013-2014 (31%). Figure 3 shows the percentage of students from the total that have done an internship every academic year. Although a decline is still noticeable, this is moderate. Also, the turning point shifts to 2015-2016.

### *3.1.2 International programmes and mobility (Erasmus, FARO, Arquia)*

In addition to the programs mentioned above, other options acquire special attention in the case of architecture students. The Erasmus Programme, the FARO Global scholarships or the grants for professional internships in European architecture studios provide by Arquia Foundation give students in higher education the opportunity to start working on the most prestigious architectural firms throughout the world. While the Erasmus programme is common to all the EU countries, the FARO scholarships is a specific programme of the Spanish Ministry of Education. Both seek to improve the professional qualification of European/Spanish students undertaking internships abroad. It also pursues to raise the level of proficiency in languages, to facilitate the internationalization of student's careers, as well as, to favour the job insertion. Although they are not specific for architecture students, a large number of them participate in these two programmes every year.

It deserves special mention the Arquia's grants. The Arquia Foundation annually offers twenty-four scholarships aimed at students and young architects of the Spanish and Portuguese School of Architecture, destined to the realization of professional practices in twenty European architectural firms. Some of them are in Spain (Madrid, Barcelona, Pamplona o Sevilla), but also in Portugal, France, the United Kingdom or Germany. The programme includes seven additions scholarship to undertake an internship in different Spanish public institutions or foundations. The number of fellowships is insignificant compared to the total number of architecture students in Spain and Portugal. However, it is a programme that has special recognition within professional practice. It must be considered that the director of five of these studios has been awarded a Pritzker Prize, regarded as the Nobel Prize of Architecture. This fact leads many students and young architects to apply for one of these intern positions. In the last edition, 517 candidates participated in the application process.

### *3.1.3 Funding, selection processes*

In the curricular programme, students could perceive a monthly amount as a scholarship from the company where they are doing the internship, according to RD 1493/2011 [20] and Law 18/2014 [21]. In practice, they are mostly non-remunerated internships, since the student gets ECTS credits instead of a monetary grant. In the case of the extracurricular programme, students should be granted according to RD 1493/2011 as well. The minimum monthly salary is 300 euros (20 hours per week). In both cases, the intern's selection is made by each company following student's academic record in those subjects related to the type of functions that they will perform. So, this is an external process in which academic tutors are not involved.

In the Erasmus and the FARO programmes, other criteria are considered. Every architectural firm established its own way to select the candidates. In this sense, not only academic records are taken into account. The candidate application usually includes the student's CV, a presentation letter and a portfolio highlighting the best of his/her architectural and urban designs. Both are remunerative internships being support by European Union funds. The grant varies depending on the country of the receiving company or institution and the financial situation of the student's family. Companies can provide the student with an additional monthly amount.

Finally, the grants provide by Arquia Foundation are the ones with the higher monthly salary since it is a programme performed by a private foundation. They have an interesting mix system of selection. Half of the positions are selected considering academic records of the students. The qualifications in design courses get special attention of the selection committee. The other half are selected in an architectural design competition. This tender pretends to be similar to the professional ones. Each year the jury is formed by different prestigious architects. Competitions but also the use of portfolios are closer to the selection criteria usually used in professional architectural practice.

## 4 CONCLUSIONS

As it has been analysed, the employability of university students after completing their academic path is one of the main concerns of public agents and has decisively influenced in the educative reorganisations proposed. This has been accentuated in the architectural sector, as a consequence of the hard effects of the different economic crisis in this profession.

The extension of the pre-Bologna study plans in Architecture in Spain -originally extended along 7 years and then reduced to 6- supposed a delay in the insertion of architects in the professional sphere, if we consider that in comparison to the Bologna scheme. The fragmentation of the studies of Architecture, provided by the sequence of Bachelor (5 years of study, that is 300 ECTS) plus Master (1 year, that is 60 ECTS, in which they truly acquire the professional qualifications), allows an earlier incorporation to the profession. Thus, considering the different models of study plans, it is evident that the delay for students to become fully qualified architects -able to practice on their own- has not varied significantly. However, it does have changed the system and procedures for gaining the most professionalising competencies. After the Bologna process, different academic strategies are proposed especially for the later stages of both study levels. Since the implantation of this new system, a great part of them are reached in collaboration with external agents, by means of incorporating different formulae of traineeship and entrepreneurship activities. This is complemented with the final dissertation that students owe to accomplish in each one of the academic levels.

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