

# PRESERVATION AS A NEW COMPULSORY SUBJECT IN THE CURRICULUM OF ARCHITECTURE. THE EXPERIENCE IN THE SCHOOL OF VALENCIA

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## Abstract

The graduate studies of architecture in Spain have been traditionally linked to the Schools of Madrid and Barcelona, founded in 1840 and 1875 respectively. Only from the decade of the 1960s on, these options were enlarged with new schools of architecture in other cities like Valencia and Seville and, afterwards, San Sebastian, Valladolid, Las Palmas, A Coruna, Granada, Alicante. Till present, the only compulsory subject regarding architectural restoration in the schools of Spain was “Restauración Arquitectónica” at the School of Granada, Alicante and Valladolid recently introduced. In the best cases, there only existed restoration training in the postgraduate studies through Master and PhD courses that partially or specifically included the subject. This was, for example, the situation in the School of Valencia till the year 2002, when the introduction of a new curriculum finally included a compulsory subject specifically named “Architectural Restoration”. This subject is taught by the authors of this article and is accompanied by several optional subjects in the graduate course and a new offer in the postgraduate course that unifies the previous Master and PhD courses in the form of a European master.

## Keywords

Architectural restoration, teaching, compulsory subject, criteria

## 1. INTRODUCTION

Teaching architectural restoration in Spain is arriving nowadays to a crucial point. First, several schools of architecture have recently introduced in their curricula restoration subjects –most of them optional ones- in a context of increasing interest in the way to educate architectural restoration. Second, the need for adapting Spanish curricula to EC standards for education is asking for a new review of them that may affect positively or negatively to the same education of architectural restoration. The here introduced experience at the School of Architecture of the Universidad Politécnica of Valencia inserts itself in this mostly yet to be defined panorama.

## 2. TEACHING ARCHITECTURAL RESTORATION IN SPAIN

The graduate studies of architecture in Spain have been traditionally linked to the Schools of Madrid and Barcelona, founded in 1840 and 1875 respectively. Only from the decade of the

1960s on, these options were enlarged with new schools of architecture in other cities like Valencia and Seville, afterwards, San Sebastian, Valladolid, Las Palmas, A Coruna, Granada, Alicante, and recently Malaga or Reus. Some private schools of architecture have also been founded since then in Spain, like the ones at Pamplona, Barcelona, Madrid or Valencia.

We could assert that till the 1990s, training of architectural restoration in Spain was not included in the curricula of the schools of architecture. Nevertheless, from the beginning of 1980s, all Spanish architects were allowed to work in the architectural restoration field with their architect degree. This absence of a specific education has certainly brought some chaos and lack of criteria in the interventions made on that time. In the following years, the architectural corporations in Spain have tried to cover this shortage of specific education through several specialization courses and seminaries, and the Universities have created several masters directed to architects, engineers and quantity surveyors. Anyway, these education initiatives have been unfortunately aimed to a limited public if we compare it with the whole of active architects.

If the data presented by J.L. González Moreno-Navarro (2007) is to be believed, there are nowadays in Spain only four schools of architecture that offer a compulsory matter on architectural restoration: one at Granada with six credits, one at Valladolid with 9 credits, one in Alicante with 6 credits and one at Valencia with 4,5 credits. Other schools of architecture only offer some optional subjects in their curricula (Sevilla, Granada, Las Palmas, Segovia, Valladolid, Barcelona, Coruña, Madrid, Navarra, Alicante, Valencia, Donostia). In many of these schools there are some postgraduate or master courses, seminaries or specialization courses (Sevilla, Valladolid, Barcelona, Coruña, Madrid, Navarra, Valencia).

These data reflect clearly the existence of two tendencies in Spain regarding the education of architectural restoration, the same two tendencies that we can find in other schools of architecture in Europe (D.Fiorani, 2007): on one side, and this is the prevailing one, restoration is considered as optional subject or specialization course to be given for a small group of students or professionals; on the other side (only four schools in twenty seven in Spain, including public and private), restoration is considered as part of the basic training to be received by the whole of the architecture students, that is to say, the whole of future architects.

The danger of the first option is that only few architects will have a at least basic knowledge on architectural restoration, while most of the architects that will intervene in architectural heritage will have none. On the contrary, in France and Belgium, where restoration training is also relegated to postgraduate courses, only specialized architects are allowed to work on architectural restoration. Nevertheless, in Spain nobody has ever thought to restrict the field of architectural restoration to specifically trained architects.

On the other side, the second option is based in considering the specific nature of architectural restoration. Therefore, it requires a specific training that will include the methodology to study a historical building, the intervention criteria, the building techniques and their ways of implementation. This specific training must be directed to the whole of architecture students, as architectural restoration does not include only monumental architecture of the past, but all the historical buildings of a city center or a rural settlement, regarded both from the architectural point of view and the city planning, protection, cataloguing... This means all the variety of architectural activities and professional architects, independent, civil servants (local, regional and national), building enterprises employees, professors, etc.

Nowadays, as it has been previously said, we are again in a crucial situation where the architectural restoration training is again under debate. The compulsory review of the curricula in order to match the EC standards and the reduction of the study credits for every career may turn out to be a step backwards in the consolidation of restoration subjects in the architecture studies. The guidelines for the redaction of the new curriculum, the so-called White Book, claim a general architectural education and consider architectural restoration as an architecture speciality to be learnt in postgraduate courses. At the same time, among the competences of the architecture degree includes the restoration projects and the protection and cataloguing of architectural heritage. Thus, all the possible ways remain quite open and the final decision lays

mainly in the hands of the commissions of every school of architecture in charge to shape the new future curriculum.

In this moment of uncertainty, we want to introduce the recent experience of the School of Architecture of Valencia made since the introduction in the present curriculum in 2002 of a compulsory subject specifically named “Architectural Restoration”, with 4,5 credits (3 theoretical and 1,5 practical, total 45 hours) in the fifth course of the studies. This subject is taught by the authors of this article and is accompanied by several optional subjects in the graduate course and a new offer in the postgraduate course that unifies the previous Master and PhD courses in the form of a European master.

### UNIVERSIDAD POLITÉCNICA OF VALENCIA

GRADUATE	POSTGRADUATE	RESEARCH
<p>Architecture Restoration (compulsory)</p> <p><i>Graduate</i></p> <p>Optional Subjects</p>	<p><i>Master</i> → <i>Phd</i></p>	<p>IRP - Instituto de Restauración del Patrimonio</p> <p>Magazines: R&amp;R y Loggia</p>

Restoration studies at the Universidad Politécnica of Valencia

### 3. THE ARCHITECTURAL RESTORATION IN THE GRADUATE STUDIES AT VALENCIA

Given that the subject “Architectural Restoration” will be the only possibility to learn some smattering of preservation for the majority of the students of the School of Architecture of Valencia, as professors in charge, we have decided to organize the subject as much formative as possible. In few hours and with 500 students divided in four groups, a very ambitious program is imparted. This program introduces the basic concepts and criteria and, at the same time, gives some rudiments for the practice of the profession.

The objective lies in the formation of not only general or specific but also technical criteria on the subject. Technology changes and evolves so quickly with time that it is more important to distinguish how to handle and use it in general terms than exactly knowing the last recipe of the market. After passing this subject, students must be able to propose a study and a project or, at least, to realize how much training and meditation is needed to solve a restoration project without being superficial.

First, the student is trained in theories and history of restoration in order to give him a basis to think and argue the decisions and criteria to be adopted in his practical project. This part includes an introduction to the vocabulary and the basic concepts of the field; an international panorama of the history of restoration from its fundamentals to the contemporary theories; and a vision of the present situation of the field in Spain and in the region of Comunidad Valenciana, through illustrative examples of the recent past.

In parallel with this theory and history, a practical restoration project is requested from every group of students. This project will consist in a throughout study of the chosen building with a historical study, metrical, photographic, constructive and material survey, stratigraphic analysis, deformations, material, constructive and structural pathologies, research of characteristic elements and, finally, a general restoration project that shows and justifies the purposes, decisions and criteria of the authors. This project is accompanied by some specific proposals of technical solutions for chosen parts of the building.

These theoretical and practical parts of the subject are to be developed simultaneously in order to make them think in the restoration project from the very first moment. Many of the parts of this throughout study have been learned and implemented in the previous subjects of the career (History of Art and Architecture, Architectural Drawing, Construction, Structure Design...), but they have not been focused on historical buildings or conceived as a whole in a single study. Besides, the practical part is not only represented by the restoration project, but also purposely linked to the theory and history of restoration as the students are always asked to argue and justify their project choices and the criteria applied.

The rest of optional subjects complement this restoration training but the after-effect is very small. For example, the subject "Introduction to Restoration" is only open to students of first and second courses. It has three credits (30 hours) and have usually a close number up to 30 students, some of them even coming from other schools and therefore not architects.

#### **4. THE ARCHITECTURAL RESTORATION IN THE POSTGRADUATE STUDIES AT VALENCIA**

In the academic year of 2006-2007, a new European Official Master on Architectural Restoration has been introduced in the Universidad Politécnica of Valencia. This Master course has been conceived as a possible step to further develop a PhD. That is to say, the Master's course and thesis substitute the former traditional system with subjects and represents an initial and necessary first step to get a PhD.

This Master is open to architects, quantity surveyors, art historians, engineers and any other type of profession if previously is approved by the Master's commission who is in charge of select and accept the applicants' curriculum vitae. The Master has a content of 60 credits (600 hours) for the architects and, generally, 90 credits (900 hours) for the rest of applicants coming from other studies. This difference of 30 credits aims to fill the training specific gaps of these non-architect students, previously to their incorporation to the main and central part of the Master, together with the rest of postgraduate architect-students. The content and specific subjects of these 30 credits are chosen after the necessities shown by the curriculum vitae of the students.

This organization of the curricula means that there are six previous months of training for non-architect students, plus one year more for all of them, the former and the architects. Once finished, the student must write a thesis in order to obtain the Master title. This final thesis may and must serve as a general trial for the later PhD thesis, in the case that the student decides to continue his postgraduate studies.

The first six months in the master include subjects like "History of Architecture I", "History and Theory of Restoration", "Methodology"... that constitute the first approach to these subjects. The following training during one year includes the second part of these subjects, with a deeper and specific view, and introduces a workshop for restoration projects.

The authors of this text impart three of the Master subjects: "History and Theory of Restoration I", "History and Theory of Restoration II" and "Intervention criteria: from theory to practice". The first subject aims to introduce the first rudiments of the theories and history of restoration to students whose training did not touch this theme. This subject is similar to the theoretic part of

the one called "Restauración arquitectónica" given in the graduate course and previously described.

Then, "History and Theory of restoration I", with four credits, is focused to students that approach the architectural restoration for the first time. Its main goal is to acquire a critical ability in front of the different restoration lines. That is to say, the student must know the history of restoration and the thoughts of the protagonists of the past in order to be able to form his/her own personal point of view. The students must build progressively their criteria to be able to analyse and criticize the restorations done by other architects and, above all, set a personal meditation that is necessary to face their future restoration projects. This subject does not try to impose a particular view on the student, but to open for him a whole panorama of the different approaches and aspects of the restoration field.

The development of the program includes an introduction to the theories and methods of the contemporary restoration; an introduction to the vocabulary of restoration and conservation's terms; a view in the relationship between historical architecture and the pre-existences from the past; the origins and development of the modern theories on restoration since Ruskin and Viollet le Duc till nowadays.

The subject "History and theory of restoration II" deepens in the field and aims to extend this knowledge both in quantity and quality. This subject, also with four credits, is focused on students who have already received at least some previous training on the matter, either during the graduate course or during the first Master semester. The main didactic goal is to broaden this view on restoration in two lines: first, the ideas and discussions of the contemporary theories; second, the specific case of the restoration and conservation in Spain, both in the history of thoughts, ideas and built examples and the main cases in the Comunidad Valenciana region in the last significant thirty years. Again the objective consists not only in simply deepening on the knowledge of the theory but obtaining from it thoughts in order to form personal criteria around architectural restoration and conservation.

The development of the program includes an approach to the world of restoration charts and its relationship to the contemporary restoration of the architectural heritage; a historic and contemporary view on the restoration and conservation in Spain; and some specific subjects on the main debates of the field in the present.

The subject "Intervention criteria: from theory to practice", with four credits, face the fact that the knowledge of history, theory, techniques and constructive recipes for restoration is not enough if the Master student is not endowed with criteria to distinguish the objectives to reach during the restoration project. The detailed study of some intervention cases, from the first idea to its implementation in reality, the analysis the employed criteria, its formulation during the project and its materialization during the restoration works, help to show the student the process from theory to practice in the discipline of restoration. The idea is to help the students identifying their own thoughts on restoration and facilitating the way of these purposes without losing them till they are applied in the building. This elucidation of purposes help to realize the restoration project without letting oneself acritically being dragged along by technological recipes offered by the market and, therefore, looking for reasoned and weighed up possibilities, techniques and materials.

The development of the program includes considering the necessities of the building and formulating the intervention criteria; the analysis of the different intervention criteria through several examples; the formalization of the criteria during the project and the possibility of being coherent with them during the works. This subject comprises frequent visits to restoration works in order to show the practical application of these thoughts and the adopted criteria during the previous studies and the project. This subject also includes a practical exercise that consists in a critical analysis of an intervention from the architect's declared criteria till its realization in the building.

## 5. OTHER ACTIVITIES RELATED TO RESTORATION AT THE UNIVERSIDAD POLITÉCNICA OF VALENCIA

The teaching and training of architectural restoration in the graduate and postgraduate courses is complemented at our university with other activities of research and diffusion in the field, where the authors of this text participate actively. In the year 2002, for example, the Instituto de Restauración del Patrimonio – IRP (Institut for Heritage Restoration) was founded. IRP is a research institute that groups all the activities related to restoration research and practice inside our campus. That means restoration activities on architecture, sculpture, painting, frescoes, textile, paper, etc. This institute is also a place where the students may obtain grants and scholarships, form part of the single research groups and develop their Master and PhD thesis. On the other hand, two restoration magazines are published inside the Universidad Politécnica of Valencia: one more informative called *R&R Restauración & Rehabilitación*, and another more scientific one called *Loggia, Arquitectura & Restauración*, whose editors are the authors of this text. This task of diffusion complements the already named tasks of teaching, training and research. The realization of these magazines also allows some students to get a deeper view and knowledge of the restoration world nowadays.

## 6. CONCLUSION

Taking into account the specific difficulties inside the Spanish panorama of restoration, the School of Architecture of Valencia and, by extension, the Universidad Politécnica of Valencia, are trying to offer a definite training on restoration, even if for the moment there only exists one compulsory subject on architectural restoration in the graduate course. This means at least that, in our University till this moment, the necessity of a specific training to be a restoration architect has been detected. We would like to believe that the example of our subject could serve as a basis for establishing a specific training on architectural restoration in other schools of Spain, as they need now to review their curricula to match EC standards. As shown, this our training on architectural restoration is aimed to give a general view on the subject based upon the intervention criteria, directed to raise questions and arouse interest, trying to shape a critical and independent mind more than acritically giving prescriptions, recipes and dogmas.