RES-COMPETITION. FOSTERING MOTIVATION AND COLLABORATIVE LEARNING THROUGH NEW TEACHING METHODOLOGIES

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Abstract

The project, focusing on learning architectural conservation, is being conducted within the framework of a project for innovation and teaching improvement (PIME/UPV 2015 -2016). It seeks to introduce innovations to a significant part of the core course of architectural conservation (RES) taught at the School of Architecture in the Polytechnic University of Valencia, with a view to enhancing student motivation.

The subject of RES has been taught since the 2006/2007 academic year with a wide range of methods, basically relying on the approach of "principles into practice".

In this context, the object of study, carried out within a PIME project is the historic fisherman's quarter of Valencia, known as Cabañal. The existing historic urban patterns, buildings, and their details have been carefully studied. Students were guided during fieldwork, search for historical documentation, surveys, analysis of materials, constructive techniques and causes of decay. Based on all these contributions they presented some intervention criteria aimed at protecting the richness of the "architectural prose" discovered in the district.

Subsequently a competition of ideas between different teams involved in the study of the district was eventually promoted. The competition improves real professional skills, while bearing in mind that the municipality should be partially involved in the study. The students also have the opportunity to exchange ideas, preparing final posters of the proposals to exhibit in the School of Architecture.

Keywords: architectural conservation, fieldwork, professional activity.

1 INTRODUCTION

The project explained below focuses on the subject of Architectural Conservation (taught at the Higher Technical School of Architecture (ETSA) of the Universitat Politècnica de València, Spain), introducing innovations to a large part of the course placement. It specifically examines the framework for the experimental activity of the innovation project ´RES-competition. Fostering motivation and collaborative learning through new teaching methodologies´ (PIME/UPV 2015 -2016), aimed at encouraging students to view practical classroom activities as experiences closer to professional reality [1].

2 THE SUBJECT OF ARCHITECTURAL CONSERVATION TODAY AT THE ETSA/UPV

At present the subject of Architectural Conservation, as taught in the ETSA/UPV, is based on a methodology of action which uses a highly detailed study of a building to put together a conservation project suited to its needs.

This methodology contemplates an initial prior phase involving the study or examination of the building, a second phase assessing the building's values and recognition, and a third one for the establishment of intervention criteria, project actions, and choice of most suitable techniques, while the final phase executes the project and carries out an intervention on the building.

The first basic phase of conservation focuses on studying the building in all its historical, constructive, structural, functional, cultural, or symbolic facets. This information is vital to any conservation. The material nature of the object examined provides a series of values which prompt the conservation, be it a monumental building or a preindustrial non-monumental one built using traditional techniques.

ISBN: 978-84-617-5895-1

The starting point of the subject of Architectural Conservation is therefore the study and assessment of historic buildings taking into account the capacity to establish intervention criteria which respect the historic building and its value, as well as meeting the demands of modern life.

This learning requires prior reflection on conservation theories, as formulated over time in response to technical problems and problems in criteria which have arisen. Secondly, it is necessary to implement the methodology of the intervention itself through the different phases of the study of the building (historical study, metric survey, study of materials and constructive techniques, study of material pathologies and structural damage, etc.). It is essential to also reflect on the values and needs of the building in relation to the needs of modern life in order to define the criteria to guide the intervention. Finally, the material, structural, or functional strategies to be formalised in the intervention should be established.

2.1 Why carry out practical conservation work?

Although practical work and classroom activities are the centre of the study and intervention methodology to be implemented in the historic building, other activities also have an effect on this learning. Practical work, together with some classroom activities, further explores some sections and has been seen as a work project from the very beginning. This practice, which lasts the entire course, also makes it possible to apply the contents of the subject in a practical manner, linking them to classroom activities in an eminently practical approach to professional activity [2]. Thus, the practical work consists in developing the study process and conservation project of an actual historic building chosen by the students so that they can work in a setting as real as possible. This is a true simulation of commissions for assessment and conservation which the students, as future graduates, will encounter in their professional life. The three main work phases developed by the students during the course are the case selection; onsite direct learning applying different study and research methodologies; and the critical proposal for the project.

In addition, in the course of the project, intervention criteria should be seriously considered as a fundamental guide [3]. The “practical task” is executed basically in a preliminary phase and three work phases. Each of these phases takes on different forms: preparation activity (students read, research, choose, etc. before class), classroom activity (students complete part of the practical task either in groups or individually in the classroom supervised by the teacher), field activity (in groups, students do the fieldwork, mostly related surveys and mappings), office activity (students do part of their work at home, either individually or in groups). These activities will be developed depending on the task phase and its needs for development.

3 RES-COMPETITION: PROJECT WORK THAT TRANSLATES AS LEARNING

The main aim of the project was to provide a new format for the practical part of the RES subject in order to encourage student interest, participation, and motivation. The practical work component used a methodology close to the professional reality of future architects to provide their first real experience of a conservation study and project, supervised by tutors [4]. The RES□competition educational innovation project has therefore approached practical work from an even more participatory methodology in the form of a contest (Fig.1). The final aim of all the students was to presenting a synthesised version of the completed work for a competition between teams.

Fig.1. Logo of Res-Competition project. (Authors)

Architecture competitions - in this case architectural conservation competitions - are frequently found in the professional field of architecture. Competitions developed in teams encourage groupwork, collaborative learning, and increase respect towards other professions or specialities. The work is also done following a set of rules pre-established by the competition and a calendar, making the conditions for participation extremely clear. This new work format was accompanied by an exhibition which made it possible to present the work developed to the rest of the school of architecture, with the possibility of a future catalogue. It was designed to motivate students in the subject, and to create expectations

among future students while disseminating information on the issues examined in the subject among other teachers in the school of architecture [5].

3.1 Four points for understanding the project

Four main specific objectives were proposed for the “RES-competition” project:

1 The redesign of the practical tasks for the RES subject students in the form of a competition between teams. The competition format (with clear rules, work calendar, and deadlines) allowed students to carry out their work without losing focus and encouraging participation in both practical and theory classes.

2 The establishment of work conditions to be held in the form of a competition: themes, development phases, tutoring and correction, public exhibition, submission, calendar, assessment, etc. A key point for the suitable development of the project was the establishment of good “competition rules” based on practical work experiences from previous years. The ´game rules´ have been established for students as well as for teachers. This initial step contributed to transparency and clarity prior to starting the work.

3 Completing a satisfaction survey on the process and results attained. Upon completion of the different phases of the project (see tasks below) a survey was carried out to assess the real level of satisfaction of students and teachers. The results of these student and teacher satisfaction surveys on the process were analysed with a view to possibly translating or adapting the methodology to other subjects in the Department of Architectural Composition or in other departments.

4 The best works were selected by the different RES teachers, as if it were a real competition, so as to prepare an exhibition and possibly publish an accompanying catalogue. Absolute winners were not selected, as the real aim of the project was to identify the students who had submitted quality projects respecting the rules of the ´game´.

3.2 A “scenario” for RES-competition: the Cabañal neighbourhood in Valencia

The “scenario” for this study was Cabañal, a historic neighbourhood linked to the seafaring tradition of the city, and one which is experiencing more problems than others in the struggle between popular architectural heritage conservation and urban speculation [6]. From the late 1990s Cabañal has been especially under threat due to the extension of an avenue (PLAN PEPRI 1997), entailing the possible destruction of a layout of 19th century historic popular architecture and modernist buildings. Although at present “Sventramento” has not been executed, Cabañal has been threatened by urban policies of expropriations, demolitions, and lack of maintenance. At present, Cabañal is a peculiar neighbourhood, which is part of the city but has a very complex identity, largely defined by problems of poor housing, decay, and conflictive social classes with no adaptations [7].

Each group of students was assigned a block or part of a block to work on, first carrying out a study essential to research on a historic block and its layout with the depth and precision needed to design the correct intervention.

Fig.2 Cabañal, historic neighbourhood of Valencia (historic map 1899). Details about blocks studied. (Authors)

The prior study was finally carried out following the general description and characterisation of the neighbourhood (location, historic description, metric-descriptive survey, study of materials and constructive techniques, stratigraphic study of the architecture, study of decay phenomena and mechanisms, study of structural problems). Finally, a preview was prepared for the conservation of one or two unique buildings, noted for their state of conservation, constructive interest, or need for urgent intervention. In these cases special attention was paid to the criteria for intervention and the development of some of its aspects (structural consolidation, intervention on damp, recovery of openings, functionality, etc.) - a series of needs and problems that had emerged during the study phase.

Fig.3 Facades and details of the buildings selected for the study. (Authors)

The RES-competition was therefore a very positive experience, involving 239 students from the ETSA/UPV (Architectural Conservation Subject) who during the 2015/2016 academic year had studied 60 blocks located in the Historic Neighbourhood of Cabañal in Valencia (Fig.2/3). This was part of a study of more than 70 historic buildings, proposing conservation solutions following the analysis of geometry, materials, construction techniques, pathologies, and construction chronologies of some buildings selected under the guidance of the teachers.

4 CONCLUSIONS

Taking part in an architecture competition and possibly seeing a project effort recognised means major recognition for any professional, being the best in the field, or at least the best among those vying for the “prize”. Architectural conservation competitions are plentiful and increasingly frequent. Professionals winning a conservation competition are recognised by professionals in their field and so increase their chances of finding employment.

However, the RES-competition practical exercise only “simulates” an architecture competition. There is no financial reward but the prize here is academic recognition, which has helped to motivate 42 groups of students from the Higher Technical School of Architecture of the UPV, who finally have been selected for the final exhibition (Fig.4).

Project-based learning such as RES-competition is a methodology which allows architecture students to acquire key knowledge and skills in the 21st century by drawing up studies on architectural conservation in response to real problems of professional life. Students become the protagonists of their own learning, developing their autonomy and responsibility, as they are in charge of planning, structuring the work and drawing up studies to resolve pathologies, structural damage, problems in composition, form and use, and intervention criteria.

Working on a real context, connected to the city's geography, social situation, and urban management policies, makes RES-Competition a teaching option that adapts to professional reality, motivating students and creating the possibility of closer relations between the administration and the university, equally motivated by the detailed study of a conflictive neighbourhood, and thus paving the way for systematic studies of this sort.

Fig.4. Example of a previous study presented in RES-competition.
(Credits Tevar/Gonzalez/Mayordomo/Ortiz)

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