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## Educational tools for involving higher degree students within the Project Creative Conservation

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### Abstract

**Background:** The Project Creative Conservation was developed at the Conservation and Restoration Laboratory / Polytechnic Institute of Tomar (IPT) as a form to recover, preserve and show in a new way industrial remnants and derelicts, complying with well-defined criteria for collection and selection of those fragments. As a new concept, it needed to be experimented, so students were involved in its practice, which enabled theory demonstrations and maintained a dynamic university learning atmosphere. **Purpose:** This paper presents the challenges posed to three Conservation and Restoration teachers: different ways to explain new and controversial information, engaging students for the Creative Conservation concept, developing practical extra work, learning and improving hands-on skills, and to practice team-work within a Conservation Laboratory and a Museum environment. **Methods:** A series of three different workshops were designed as learning tools to allow students to develop conservation skills, discuss problem solving and practice “out of the box” thinking, under the Project Creative Conservation, within the specialties of ceramics, tiles, metal, plastics and paper remnants preservation. It was also provided the chance to create different exhibition methods, installation and exhibition display. **Results:** A good percentage of students were enthusiastic and complied with the conservation challenges posed by teachers and by remnants themselves. The fragments were properly preserved and differently displayed in exhibitions. **Conclusions:** The IPT conservation teacher’s competencies and enthusiasm towards teaching a different concept within a practical frame enabled students to broad their view in the conservation field and widen the classical approach to conservation and restoration.

**Keywords:** Learning tools; Education; Workshop; Project; Practical hands-on work; Leadership; Interdisciplinarity;

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## 1. Introduction

The Polytechnic Institute of Tomar (IPT) was created in the 80's in the centre of Portugal, with the purpose of provide a range of high degree courses to the population living in a 60 km radius from it, bridging them to develop their studies. The ESTT (Superior School of Technology of Tomar), had the mission to provide skills in the areas of science, technology, arts and humanities, offering high degree courses at levels 5, 6 and 7.

One course was a cornerstone amongst others, the Conservation and Restoration course. The aim is to educate and training professionals with the skills necessary to conserve and restore different cultural property, built with materials as stone (buildings and sculpture), ceramics (including archaeological and tiles), wood (furniture, carved gilded wood and polychrome wooden sculpture), paintings (canvas and wood paintings) and, later, paper objects (books, documents and 3D).

Since its creation, conservation and restoration curricula goals evolved, namely due to the need to adapt to the Bologna directives. Therefore, the conservation and restoration training levels are, at the moment, divided in a 3 year (BA or Licenciatura, level 6) plus a 2 year (MA or Mestrado, level 7) courses.

The 5 years duration training is in accord to international recommendations, and integrates the European Network for Conservation-Restoration Education (ENCoRE) (ECCO, 2002).

Both levels provide a high manual hands-on practice, with a distinct focus at the MA level for a speciality area. Nonetheless it has been noted that students need to develop further their conservation and restoration skills, in order to acquire practical dexterity and a wither knowledge within different objects and situation, thus developing their professional abilities.

Under the fulfilment of its mission, three conservation teachers decide to stimulate and promote extra-curricular activities connected to the conservation and restoration courses. The actions found to support this were the creation of so far three workshops, as a pedagogical instrument in engaging students for the Creative Conservation Concept.

This paper presents the work and challenges that some teachers of the IPT Conservation and Restoration Laboratory, students and collaborators were faced with in elaborating and run practical workshops. It also introduces the concept of creative conservation as an educational tool that enabled and encouraged "out of the box" thinking, and also demonstrates the complexity of the Conservation and Restoration and the versatility of the Conservator-Restorer's profile.

## 2. The Classical Approach in Conservation and Restoration Teaching and Learning

The conservation and restoration classical approach lies in several steps – observation and analysis; diagnosis; intervention; and documentation. Conservation and restoration of cultural heritage concepts have evolved strongly in the last two centuries, but ethical principles should always be restrict and guide the work done by a serious professional (Meraz, 2010; Muñoz-Viñas, 2003; Summerson, 1963).

IPT students need to follow these directives while in classroom/laboratory. Usually a class is formed with a total up to thirty students. And due to the fact that practical hands-on work is limited to a timetable, in order to allow them to properly finish their work in practical conservation laboratory, these students are then divided into two classes, in order to enable a more intimate and dedicated monitoring by the teacher during practical laboratory work.

The students have then the opportunity to observe, manipulate and complete conservation and restoration tasks by technically applying the concepts they learned, usually in one, but sometimes more, objects.

Nonetheless, together with current discipline programs, this does not totally meet each individual needs, and does not totally enable each student to go further and to develop more its manual dexterity, in conjunction with providing the necessary knowledge resources.

Therefore it limits the purpose of creating technicians in conservation and restoration with a fully understanding of the problematics ins and outs of the profession. Frequently students question how the information is taught because it does not completely answer their professional questions. It is impossible to do so in such a limited obligatory timetable.

The workshops were these teacher's goals for the development of conservation and restoration education in IPT, by making available a scientific, hands-on, diversified, happy and without "worries" learning environment for students to grasp more information and develop further skills.

### **3. The Concept of Creative Conservation**

The Project Creative Conservation was developed at the Conservation and Restoration Laboratory / Polytechnic Institute of Tomar (IPT) as a form to recover, preserve and show in a new way industrial remnants and derelicts, complying with well-defined criteria for collection and selection of those fragments. As a new concept, it needed to be experimented, so students were involved in its practice, which enabled theory demonstrations and maintained a dynamic university learning atmosphere.

The concept emerged in 2012, within the framework of the Project Buildings & Remnants, which culminated in an exhibition curated by Inês Moreira for Guimarães 2012 European Capital of Culture (Moreira, 2013).

Its objectives were the preservation and dissemination of industrial heritage and the invocation of collective memory.

The innovation of this concept resides in the use of "creativity" in the form of presentation or exhibition of such remnants. In a more specific way, Creative Conservation main goal is to re-establish significance to fragmented objects, remnants without artistic or cultural value, seemingly without possible recovery and on the verge of being discarded (Triães, Falcão, Loureiro, under revision).

This new view of the role of conservation and restoration allows approaches to areas and materials that previously did not seem to be worthy. It also allows the application of methods and techniques that are common to several conservation domains (Blackman, 2008; Cordeiro, 2013; Hidaka, 2008).

### **4. The Workshops and Their Purpose**

The workshops resulted in a practical means to find different ways to explain new and controversial information, a pedagogical instrument in engaging students for the Creative Conservation concept, developing practical extra work, learning and improving "out of the box" thinking and hands-on skills, and to practice team-work within a Conservation Laboratory and a Museum environment framework.

In this context, the objectives were:

- Attract the interest of students for work extra classes;
- Make available to the participants on the workshops different dynamics and use of materials, not normally available in their classroom environment;
- Empowering participants to the development of different activities in the fields of conservation and restoration;
- Develop awareness for other anchor subjects within a working environment, such as team work;
- Promote Art and Heritage, in all their globality;
- Educate and stimulate students through the development of competencies and skills related to the creative and research spirit;

## 5. Methodology

A series of three different workshops were designed as learning tools to fulfil the described objectives. Allowing students to develop conservation skills, discuss problem solving and practice “out of the box” thinking, under the Project Creative Conservation, within the specialties of ceramics, tiles, metal, plastics and paper remnants preservation, was adamant for teachers. It was also provided the chance to create different exhibition methods, installation and exhibition display.

Under the teacher’s coordination – Ricardo Triães, Cláudia Falcão, and Leonor Loureiro – the workshops were performed by several students from the different levels of apprenticeship necessary to engage for this project. During the activities teachers were present, within their own timetable, to supervise and ensure that all was going according to planned. The monitoring of the work was important to be delegated to senior students, as a learning tool: someone that knows how to teach and transmit knowledge knows the subject.

### 5.1. Workshop I

The first workshop work was carried out within the framework of the "Buildings & Remnants" project (Moreira, 2013), focused on a series of industrial remains with no a priori artistic or cultural value. The project itself had a multi-disciplinary nature, enabling the adaptation of a new perspective on the role of conservation and restoration, as well as the opportunity to first explore a new paradoxical and controversial concept - Creative Conservation (Triães, Falcão & Loureiro, 2013).



Figures 1 & 2. Industrial remains before and during conservation work.

The idea was firstly outlined by Ricardo Triães, and later developed and applied by his colleagues Cláudia Falcão and Leonor Loureiro and himself, contributing for the commitment of a few students to do something new, something extra classes, were they had to relate with their teachers in a total different and closer way.

This situation scared most students at the beginning. Firstly, because they show a general apprehensiveness about the unknown – regarding teachers and the work itself – even when they want to learn and discover new things. Secondly because in the conservation field most students are naturally extra cautious and somehow introverted, and do not want to be the focus of their peers.

Also, their research spirit is still not fully developed, raising fears of not wanting to stumble or fail during the necessary procedures. They are still not aware that the trial and error is part of the process, and that one has to be confident and love its own work in order to involve others into it.

The types of intervention and treatments carried out were previously defined according to the purpose of the collection and exhibition, bearing in mind future uses for the objects and their visual and artistic potential being taken into account. After drawing a few students into this appealing task, the works bearing in mind the boundaries of the deontological code.

The students performed the material stabilization of the fragments, which resulted in some cases in a minimalist attitude. Other possibilities were explored, allowed by the restoration process, which resulted in a more marked, visible intervention. Moreover, the multidisciplinary context of the exhibition itself also allowed the consideration of other possibilities for conservation and restoration. There was freedom, with a less conventional approach, in taking advantage of aesthetic aspects achieved with the conservation and/or restoration treatment itself, especially the contrast between the “before” and “after” the intervention. As a guideline for all action, the objects were not irretrievably transformed (Falcão, 2012).

Engaging students for this new vision was somewhat difficult at the beginning. There were obviously a few more willing to experiment different points of view. These were the anchors to stimulate others and, after some conservation work done, they were the fuel for others in participating as well. Nonetheless only ten students from the BA and MA participated in total.

But the psychological effect was key to turning this first workshop into the “first of many”.

## **5.2. Workshop II**

Entitled “Tile Panel Rehab”, the safeguard of tile panels’ fragments, chronologically placed between the 17th-century and the beginning of the 19th-century, and offered to IPT, was the purpose of the workshop.

The stylistic diversity of fragments provided a work basis for students’ imagination to be developed. Starting from a set of tiles, a fragment from a single piece figure tile had its design reconstituted, enlarged, transferred to a plastic sheet to a final size of 3x3 meters, and thus creating a large single piece figure tile executed exclusively with small fragments.

This project purpose was also to allow students to learn the techniques of conservation and restoration of tiles and promote a team spirit towards dealing with a high number of fragments and turning them into just one big final object.

It had the help of the former participating students, this time as collaborators. Once the project was launched, this was key to and necessary to engage the students from all levels of study. But again, just a few from the total IPT conservation students respond to the call, mainly the ones that had already some knowledge about tile conservation or about the concept of Creative Conservation.

Participating students were faced with the criticism of non-participating ones, as well as non-participating teachers’ doubts. This had an excellent pedagogical result: it challenged and stimulated participating students in learning more about conventional conservation techniques and theory, specifically about respecting ethical and deontological principles of the conservator-restorer’s profession, as well as learning about the new concept of Creative Conservation, so they could be able to justify and keep a wealthy debate about the interventions they were in train to develop.

Also the inter-students relationship’s raised to another level of better understanding each other, as well as each other skills or difficulties in performing this kind of work.

From the educational point of view, the willingness of the participating students in doing extra work was remarkable. The general feeling was that they were happy just by doing something new, something outside classes, something that pushed their boundaries whichever they were – search for knowledge, develop practical work, being able to participate into something different.

The end result from the conservation point of view has teamed creativity and technique, and gave rise to a tile panel that will be used as a way to disseminate scientific, artistic, humanistic and technological culture, as well as raise society's awareness of the need for preservation of cultural heritage.

### **5.3. Workshop III**

The third workshop paid homage to factory work by preserving a set of workmen and workwomen timecards from Tomar Spinning Factory, permanently closed since 1994. This workshop, entitled "Timecard – a work unit" was intended to emphasize the importance of this form of measuring and recording daily effort at a factory, by conserving the cards in an artistic installation. It also envisioned redeeming the collective and personal memory through an anonymous mass of workers that, for more than a century, enabled the development of such a remarkable activity in the city of Tomar (Falcão, 2014).



**Figure 3. Some students during conservation work of the timecards.**

From a student point of view, the timecards were not "art works" and did not seem valuable. Therefore the workshop allowed students to see the cards as a worthy subject of preservation, considering their importance as "objects with a message", a time measurement unit per individual and also a part of a collective memory.

With the success of the former workshops, and with the help of previous participating students – MA student Cátia Silva, and former MA students Cristina Reis and Adriano Machado – it was easier than before to engage students, namely first year ones, for attending the workshop.

This time more than half of first year students enrolled to help in any way they could. From these, some were really participative, not only because their numbers raised since first workshop editions (there was already a "team group" feeling, a sense of belonging to something greater), but because Laboratory open hours were widened to after closing hours due to the help of former and older students. These also released teachers to perform other tasks during repetitive conservation work that is, for example, cleaning, or housing.

Regarding the conservation work, observations made allowed the identification of materials and record techniques and made also possible to determine the best procedures for the cards. Cleaning and material stabilization of each card was essential to enable a better reading, and the cards were

encapsulated in polyester (Melinex) sleeves, as a way of preservation that also contributed for their exhibition.

Most students complied with this “repetitive” work in a strong and willing way.

This project permitted them, by rearranging their schedules and rotating turns between themselves, to be able to meet the requirements of the workshop as well as of the profession, learn basic techniques of paper conservation, maintain a high degree of will, focusing on the exhibition goal, and retaining a team spirit.

In order to encourage everyone’s interest, they were told that the final purpose was an exhibition of the “new” object, the “double curtain” installation made by these cards, and that they were going to participate in it. But by the time the work was finished and there was the need to mount the exhibition, most students had exams and could only participate mildly.

Nonetheless the final work was astonishing, being a huge success amongst the local population.



Figures 4 & 5. The timecards “double curtain” installation at the exhibition.

## 6. Results and Conclusions

This all has been a great team effort to promote a scientific and artistic culture as a tool to stimulate the learning process.

The expectations created around the workshops were fully met. Teachers were able to keep participating students interested all through the workshops. Even if they had extra work from normal BA and/or Master Classes, they still found time to assist all works and requirements.

A good percentage of students were enthusiastic and complied with the conservation challenges posed by teachers and by object remnants themselves during the workshops. From the conservation point of view, the objectives in transmitting new ideas and broaden students way of thinking was achieved, and the fragments were properly preserved and differently displayed in exhibitions.

As a project that began in 2012, so far the interest for these workshops is maintained and it is growing, which proves that this type of projects is very much needed in conservation and restoration teaching, so one can conclude that this is a consolidated successful project, with possible application

in other preservation fields, namely when there is great destruction (armed conflicts, natural disasters) (Triães, Falcão, Loureiro, under revision).

The workshops resulted in an extremely positive group learning experience itself, as well as improved the dexterity skills and reasoning capabilities, and the relationships between professors and students increased and enriched with them.

By being more time with the students, professors had more contact and were more aware of the particular difficulties, ideas, and needs they showed. Students were more open in this less stressful learning environment.

Beneficial interactions between a university environment and the exhibitions atmospheres were created and maintained, with prospects for future workshops on the way.

Students that attended the workshops were much better prepared for other and future conservation and restoration classes and specialties, knowing their general way and gasp information faster and better. At the moment this is noted in third year classes: that participating students, now BA finalists, demonstrate a much more developed level of manual dexterity and cognitive and intellectual understanding that colleagues who did not participate in any workshop whatsoever.

Also, their older colleagues that were their “teachers”, mainly in the third workshop, revealed a gain in maturity and a facility in problem solving that is in line with an “out of the box” way of thinking, a much needed tool for their future professional life.

Between them, IPT conservation teacher’s relationships and interactions also developed, and this was noted by students as well. It was sometimes a huge effort to put a lot of energy and time into these workshops, believing that these were tools and means of developing student’s minds, and trusting that that was the environment a university should always provide.

Beyond what has been done, IPT conservation teachers are prepared for the next workshops, as competencies and enthusiasm towards teaching a different concept within a practical frame enabled students to broad their view in the conservation field and widen the classical approach to conservation and restoration.

Teachers betted on the concept and also participate in national and international congresses and publications, which is an incentive for students, not only for those who participated but for all who will come afterwards.

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