







PERPETIELSI SRL
[ROMANIA]





EDICULA

Educational Digital Innovative Cultural heritage related Learning Activities

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Intellectual Output: 02 EDICULA Curricula Reformation

Deliverable: D2.6 - TMM_CH21 Special Educational Session

Lead Organization: Sapienza University of Rome

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1 | INTRODUCTION

1.1 | OUTPUT 2

EDICULA project aims to reform the curricula of three post graduate programs in the field of Cultural Heritage, to permit their graduates, despite their discipline, to commonly respond to the need to face grand challenges and risks in complex environments. The parallel and complementary approach of the reformation of specific courses in these Master Programs, promotes the need for harmonization for the future creation of a Joint transdisciplinary Master Degree in the field of Monument Rehabilitation and Conservation.

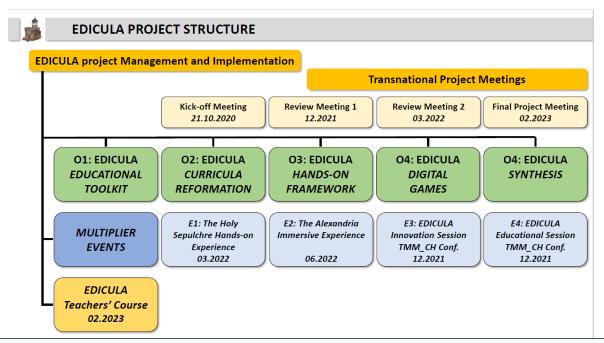


Fig. 1.1 | EDICULA Project Structure (EDICULA Kick-off Meeting 21.10.2020 Presentation)

The second output is (hereafter O2) – **EDICULA Curricula Reformation** requires the participation of the Executive Boards of the three participating Post Graduate Master:

- NATIONAL TECHNICAL UNIVERSITY OF ATHENS (NTUA) Post Graduate Program in "Protection of Monuments"
- SAPIENZA UNIVERSITY OF ROME (UNIROMA1) Post Graduate Program in "Science and Technology for the Conservation of Cultural Heritage"
- BEZALEL ACADEMY OF ARTS AND DESIGN (BEZ) Post Graduate Program in "Urban Design" together with the Conservation Unit in the Department of Architecture"

In particular,

NTUA Post Graduate Program in "Protection of Monuments" is focused on Methodologies for the conservation and interventions.

It consists of two directions:

- (A) Conservation and restoration of historic buildings and sites", organized by the NTUA School of Architecture, and
- (B) Materials and conservation intervention", organized by the NTUA School of Chemical Engineering.

The interdepartmental character of the program has been very decisive for its interdisciplinary character.

UNIROMA1 Post Graduate Program in "Science and Technology for the Conservation of Cultural Heritage" is focused on the scientific approach in the analysis of CH. The course aims at training researchers and experts in the field of CH conservation and archaeometry to analyze conservation problems and to detect deterioration processes, based on the physical, chemical and structural properties of materials, as well as to identify any possible remedies.

BEZ Post Graduate Program in "Urban Design" is focused on documentation and knowledge based design. It is a multi-disciplinary program, building on the knowledge based design project, with the objective of enriching the quality of the environment in cities through innovative design that relates to the theoretical study of the spatial structure of the form of the city.

In addition, WP2 is connected with Multiplier Event E4 and the Teaching Activity.

The final goal of O2 is to blend the different competences of these Master Programs, through the **REFORMATION OF DIVERSE, YET COMPLIMENTARY, EXISTING MASTER COURSES**, in order to address the needs of students from different scientific backgrounds and different professional dynamics.

O2 also aims to cover the **EDUCATIONAL NEEDS FOR EMERGING PROFESSIONAL PROFILES OF SCIENTISTS IN THE PROTECTION OF MONUMENTS** since new roles and responsibilities among diverse disciplines (i.e., architects, engineers, archaeologists, conservators and natural scientists) are required in the post industrial era for sustainable development

1.2 | TASK 2.3

O2 of the EDICULA Project consists of three tasks:

Task 2.1	Postgraduate reformation											
Task 2.2	Doctoral reformation											
Task 2.3	Dissemination activities of the curricula reformation											
The task duration is reported in the following table:												

Task 2.1																		
Task 2.2																		
Task 2.3																		

The impact and transferability of the curricula reformation will be improved through interaction with other similar Master Programs. A special session "Novel Educational Approach for the Preservation of Monuments" will be organized within the 2nd International TMM_CH Conference "Trans disciplinary Multispectral Modelling and Cooperation for the Preservation of Cultural Heritage" in December 2021. The proceedings of this special session, including contributions and round table panel discussions will be published in a special edition from Springer Publ. Selected lectures from the reformed courses will be recorded and will be uploaded in the EDICULA website.

1.3 | DELIVERABLES

Four Deliverables are assigned for O2:

D2.1	Design of the curricula reformation for each Master Program
D2.2	Outcomes of the nine (3x3) reformed courses
D2.3	Evaluation report of the reformed courses
D2.4	Assignment of the three doctoral theses
D2.5	Annual progress reports on the three doctoral theses
D2.6	TMM_CH21 Special Educational Session
D2.7	Proceedings of the TMM_CH21 Special Session

2 | DELIVERABLE 2.6 TMM_CH21 SPECIAL EDUCATIONAL SESSION

TMM_CH21 conference included the Panel discussion Session about Novel Educational Approach for the Preservation of Cultural Heritage EDICULA Erasmus+ Strategic Partnership. The moderator was Prof. Moropolou, Professor of NTUA.

The first contribution was by **Prof. Arakadaki**, from the School of architecture Aristotle University of Thessaloniki. Humanities, dialogue, and democracy are the keywords. Technological solutions are fundamental, but it is important to teach the respect of cultural Heritage and the difference between material and immaterial cultural heritage.

Prof. Costa, from the School of architecture NTUA, pointed out the importance of interdisciplinarity. They have two curricula: conservation and chemical engineering schools. The courses are focused to give general culture to discuss together and learn to work together. The knowledge of specialization is important, but the contact with other fields gives the students the possibility to understand how

important it is to work with others. This allowed them to understand the different points of view. In addition, digitalization helps in the teaching process, and was fundamental during the covid pandemia. Lampropoulou Antonia from NTUA presented the seminars organized by NTUA and she informed that they will be uploaded to the education Edicula toolkit. Innovative approach not only new knowledge, but also implementation process, transdisciplinary collaboration and sustainability were the focus of the seminars. The approach problem-based learning was presented as key and digital tools will be the only way to address future challenges. The graduates of this seminar were expected to serve as a nucleus of change of mentality, introduce new ideas, know-how and expertise. Hand on activities workshops and finally the teacher courses, to promote transdisciplinarity, will be the key of innovative education

Then, **Prof. Lobovikov-Katz**, from Haifa School of Designer presented the ELAICH project. Educational linkage approach in cultural heritage, an e-learning platform which enables you to become aware of and connect to your own cultural heritage and to understand and contribute to its preservation through your study.

Prof. Paraskevi, from Foundation for Research and Technology-Heallas, Institute of Electronic Structure and Laser FORTH-IESL-OPTO-CH described the activities of the Institute. They organize summer courses with the opportunity to apply on site diagnosis techniques. The participants usually come from different backgrounds, therefore they introduce them not only to the practical part, but also to the elaboration of data.

Prof. Zendri, form University Ca'Foscari of Venice, suggested how education and training courses in CH should be applied taking into account novel innovations. Relationships and collaborations will be fundamental to create possible actions making effective the education of CH.

She pointed out the importance of a legal recognition of conservation science at European level. Training should be based on base science of materials, materials conservation and the study of landscape should be included.

Prof. Turner from BEZ highlighted the three main challenges of Edicula to face together:

- 1. Crossed educational project
- 2. Interdisciplinary
- 3. Certification

Finally, Prof. Favero tried to wrap up all the contributions of the session.

The video is still available online at https://www.youtube.com/watch?v=GnCc85TWWyk.

Three key words emerge from the discussion: humanities, dialog, democracy. The fact that we start from the concept of humanities, expresses how the crisis we are experiencing is not economical but of political and cultural values (Arakadaki).

Humanities means on the one hand enable the students to become aware of and connect to their own cultural heritage, as to understand and contribute to its preservation through the study (Lobovikov-Katz) on the other hand it means working to achieve the recognition of Heritage scientists at European level (Turner, Zendri).

On the other hand, dialogue must be understood as a journey towards interdisciplinarity in which we started speaking different languages but thanks to exemplary projects serving as carriers, people are moved from different formations to similar languages (Moropoulou). Dialogue also means contamination of disciplines, not only of the scientific or humanistic disciplines with each other but above all by crossing different training, skills and sensibilities.

Training must be focused to give all general culture that enables students to discuss together and learn to work together, since the knowledge of specialization is important, but the contact with other fields can give the students the possibility to understand how important is to combine different areas of expertise and to work with others (Caradimas).

In this respect the Edicula Project is focused on an approach that entails innovation, implementation process, transdisciplinarity, sustainability; in fact innovation is intended as not only new knowledge, but also as an implementation process towards approach problem-based learning, supported by digital tools that are the only way to address future challenge (Lampropoulou). The graduates of the seminar cycle recently proposed are expected to serve as a nucleus of change of mentality, introduce new ideas, know-how and expertise, thus offering scientific support in decision making starting from a transdisciplinary mentality. Complex projects entail challenges that cannot be addressed without the coordinated involvement of various scientific disciplines.

Democracy means integrating different knowledge and expertise by giving them the same dignity and importance, as well as knowing how to listen to others, guaranteeing everyone the right to make their own contribution to a more general conversation. In this sense, education must pursue the objective of democratic fullness, so that the fruit of true cooperation can arise from guaranteeing a right. The educating exprerience is not a one man show but a shared approach from different scientists and expertises (Caradimas).

The e-learning platforms enable the students to become aware of and connect to their own cultural heritage and to understand and contribute to its preservation through their own study (Lobovikov-Katz) thus giving them the perception that each of them is important in the protection of cultural heritage.

Flexible educational toolkits for educators and heritage authorities can thus serve to introduce the values of preservation and the principles and the challenges of contemporary conservation of cultural heritage to youth and to the wider public.

Hands-on courses on real instruments, with the possibility to carry out measurements for the characterisation of the materials and the opportunity to apply on site diagnosis techniques, allow the participants coming from different backgrounds to make an integrated experience (Pouli) thus promoting transdisciplinarity and becoming the key of innovative education (Lampropoulou).

This will allow us to reach the goal of that travel towards interdisciplinarity we started decades ago speaking different languages (Moropoulou) and which can now fully answer the following questions: What is cultural heritage? Why should we preserve it? How should we do it? (Lobovikov-Katz).

The last step of this process involves the need to develop actions to make effective the education of cultural heritage, in particular the legal recognition of the profession of conservation scientist at a European level (Zendri); however, the problem of certification and recognition of training also goes beyond the European borders (Tuner), ultimately representing a global instance. To resolve the issue, it is necessary to involve politics, passing again through the contamination and integration of sensitivities and skills, up to the development of a holistic approach to the conservation of heritage which is made up of fragments of artefacts as well as sites, buildings or entire cities. Can we manage all the scale from the object to the building and the city? Can we pack all in a pack? This needs a new approach and new tools (Turner). Holy Sepulchre rehabilitation can be considered a pilot to transfer the knowhow and to construct the actual starting point (Moropoulou) and EDICULA Project cultivates this ambitious objective.

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