

IMPROVING CULTURAL RELATIONS BETWEEN POLYTECHNIC SCHOOLS OF NAPLES AND MADRID BY UNIVERSITY WORKSHOPS ON URBAN LANDSCAPE BETWEEN MATERIALS AND TECHNIQUES

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Abstract

During this pandemic and quarantine time, we have experienced a worldwide reorganization of working and teaching into a virtual mode. After taking over in-presence activities, the role of online education is no longer the simple solution in emergency conditions but a real opportunity for intercultural education, first theorized in Maastricht in 2002. The strategic role of education goes through a phase of educational transition that becomes a broad action plan for digital education of the European Union. This contribution presents the experience of an international workshop carried out in blended mode as part of the ERASMUS PLUS international collaboration agreements between the University of Naples Federico II and the Polytechnical University of Madrid. In fact, as part of the promotion of modernization and internationalization of the university system, this type of activity is developed through three main strategies:

- 1 Digitalization, through online seminars;
- 2 Attractiveness and demand growth, as through this international training experience the students involved gain an insight into the potential of the two universities;
- 3 Networking for the consolidation of international relationship between the two groups of scholars and professors.

The promotion of international mobility, through the Erasmus visiting professor experience, helps to consolidate international relations between the partner university groups as in this specific case with the University Polytechnical University of Madrid. Moreover, it contributes to personal and professional growth as teachers and researchers, and for students it promotes the development of "European intercultural competence," particularly between Naples and Madrid.

During two days of workshops, students only had an opportunity to attend in-person and online seminars taught by professors from both universities on the topic of the built landscape, but they were able to develop synthesis papers together by doing a focus on materials and techniques. The workshops were designed considering two meetings in two different locations. The first meeting was held in Naples and the second in Madrid, but both were open to remote participants. This made it possible to involve students from each location who were either enrolled at that university for their entire course of study or matriculated as Erasmus students for a semester or for the year.

Online participants, from both polytechnic schools, were able to see professors and students from both locations and listened to their presentations. The professors introduced the organization of teaching, for the structural engineer, and the activities of the two technology research laboratories, also introducing the research groups. Undergraduate and PhD students presented their thesis work in collaboration between the two polytechnic schools. It was clear from the presentations that there are many possibilities for collaboration on many topics of didactic and scientific in-depth study, and for this reason, even professors from the graduate program who have not yet done an Erasmus short mobility and who could carry out cycles of lectures abroad were involved. Caring for relationships via Internet connection, both visual and audio, is already proving to be a successful strategy for strengthening ties of European faculty groups without affecting the cost of mobility, which would still be individual and would not have the same synergy effects.

Keywords: Erasmus program, blended learning, intercultural education.

1 INTRODUCTION

The pandemic years have taken teaching, research and collaboration to a new stage. Although the initial limitations forced the recalibration of activities and sacrifice in-presence participative teaching and dialogues, at the same time they made it possible to develop the virtual mode and become familiar with it;

the emerging potential of the new digital tools proved so powerful that they were also chosen in the post-pandemic restart phase to promote a new way of working, studying and research: the blended mode.

Of course, as is well known, before 2020 platforms that allowed to connect via Internet for calls and video calls already existed, but these were limited to a strictly personal or professional sphere involving a very low percentage of the world's population. Today, virtual participation gives the opportunity to cultivate national and international relationships by simplifying travel and allowing real-time communication across time zones.

Actually, what has been done is to capitalise on the advantages of distance communication by transforming it into a tool capable of not only putting teachers in communication with their students, but to broaden the scenario to other teachers, researchers and students, from other universities and other countries, promoting real intercultural teaching.

This paper collects the outcomes of one of these experiences of intercultural research and teaching carried out in a blended mode that is inspired by the principles of the Maastricht Declaration on Global Education [1] states that: "global Education is education that opens people's eyes and minds to the realities of the world, and awakens them to bring about a world of greater justice, equity and human rights for all. Global Education is understood to encompass Development Education, Human Rights Education, Education for Sustainability, Education for Peace and Conflict Prevention and Intercultural Education; being the global dimensions of Education for Citizenship."

2 INTERNATIONAL EXPERIENCES BETWEEN NAPLES AND MADRID

The research groups of the University of Naples and Madrid that are developing this collaboration are the CITTAM - Interdepartmental Research Centre for the Study of Traditional Techniques of the Mediterranean Area of the University of Naples Federico II directed by Professor Marina Fumo, and the TEMA - Tecnología Edificatoria y Medio Ambiente group coordinated by Professor Mercedes del rio Merino; from this collaboration, the two universities have developed further agreements covering bachelor and master courses, through which students obtain a double degree: the 'Laurea Magistrale in Ingegneria Edile' in Italy, as well as the 'Master en Innovación Tecnológica en Edificación' in Spain. The common objective of both institutions is the promotion and development of scientific cooperation through the development of research lines by also proposing joint degree and PhD projects. Over the years, strengthening this link has made it possible to support the universities' internationalisation objective with remarkable results in terms of research and teaching. The activities carried out within the framework of this collaboration are many and include workshops, congresses, seminars, also within the framework of agreements with companies in the construction sector [2].



Figure 1. Italian and Spanish professors, researchers and students in the Naples University.

3 THE WORKSHOP

The workshop took place over two days: the first was dedicated to blended meetings with experts and lecturers at the Escuela Técnica Superior de Edificación of the Universidad Politécnica de Madrid. (figure no. 2) [3].

International Workshop
ETSEM, Madrid - 22/23 february 2022
URBAN LANDSCAPES BETWEEN MATERIALS AND TECHNIQUES
Workshop on cultural relations between Naples and Madrid

February 22, 2022
9:00 Presentation of the workshop
- Italian influences in Madrid architecture, **Pilar Izquierdo**
- Spanish influences in Neapolitan architecture, **Marina Fumo**
- Archaeological discoveries and the figure of Charles III as a cultural bridge, **Giuseppe Trinchese**
- Two cities, two urban areas, two realities, one research, **Gigliola Ausiello**
- The Albergo dei Poveri yesterday and today, **Veronica Vitiello**
12:30 Lunch break
14:00 Research activities in collaboration with CITTAM-TEMA
- Circular economy and regenerative sustainability, **Mercedes Del Rio Merino and Paola Villoria**
- Presentation of CITTAM and the Erasmus Mundus DYCLAM Master, **Marina Fumo**
- Proposal for a bioregional atlas, **Paola De Joanna**
- Innovation in building processes, **Roberto Castelluccio**
- Reuse of demolition materials, **Gigliola D'Angelo**
- Sustainable Mediterranean Construction: an international and interdisciplinary scientific journal, **Dora Francese**

February 23, 2022
9:30 - 18:30 Students Workshop
Naples and Madrid: urban emergencies in comparison

Logos: UNIVERSITÀ DEGLI STUDI DI NAPOLI FEDERICO II, DIPARTIMENTO DI ECCELLENZA 2018-2022, CITTAM, ESCUELA TÉCNICA SUPERIOR DE EDIFICACIÓN UNIVERSIDAD POLITÉCNICA DE MADRID

Figure 2. Workshop program.

The talks all focused on the relationship between Naples and Madrid from both a historical-cultural and an architectural-technical point of view. In particular, the first talks in the morning dealt with aspects of the architectural influences of the two cities and the figure of Charles III seen through a cultural bridge, while the second part of the seminars focused on more technical aspects relating to circular economy strategies and innovative proposals in the field of construction common not only to the two cities, but more specifically to the research groups of the two universities [4].

The workshop activities involved several students from the two universities, who were engaged both in attending hours of lectures and in the elaboration of synthesis project panels; in figure 3, the students' Alessia Verniero, Chiara Borgo, Daria Cedrola, Andres Maglione e Gianluigi Esposito final synthesis project is shown.

The workshop phase saw the definition of a series of points of connection between Naples and Madrid, which the students also reported in their project designs; in particular:

- Charles III of Bourbon: the relationship between Naples and Madrid

The consolidation of neoclassicism in Spain was due to the accession of Charles III of Bourbon to the throne in 1759: the sovereign introduced a taste for neoclassicism to his native country, the result of his experience during the period he spent governing the Kingdom of Naples (1734-1759). This knowledge was passed on to his sons, Ferdinand IV in Naples and Charles IV in Spain, who continued to cultivate a passion for antiquity in their respective kingdoms, strengthening the relationship between Italy and Spain and especially between Naples and Madrid. Charles III's interest in antiquity was due to the excavations undertaken in 1738 in the city of Herculaneum, which led to the discovery of the basilica, theatre and villa of the Papyri. The king personally intervened in the excavations, directing them, supervising them and promulgating regulations to

protect the archaeological heritage of Herculaneum and later also Pompeii and Stabia. The Herculaneum Academy, founded in 1755, the Portici engraving school and the Royal Printing House provided the instruments to spread neoclassical images and decorative repertoires in Europe: they acquired the generic name of 'Pompeian styles' in Spain, since compared to Herculaneum or Stabia, the city of Pompeii was the best known site in the Iberian country;

- The Pompeian style: the Palace of Aranjuez

In Spain under Charles III (and later Charles IV), the Palace of Aranjuez was decorated and enlarged. The presence of the Neo-Pompeian style is evident in rooms such as the Queen's Study: scenes from the Passion of Christ accompanied by Neo-Pompeian motifs were painted on the vault by Mariano Salvador Maella. However, the Neo-Pompeian style really predominates in the decoration of small isolated buildings, which were created within the royal sites as places of leisure, entertainment and enjoyment of nature, for the children of Charles III. Such buildings are called 'casitas' ('little houses') in reference to their small size in relation to the main residence of the site in question; they hosted parties, literary gatherings and collections of works of art;

- Villa Comunale and Paseo del Prado

During the reign of Charles III, the Prado Viejo was abandoned. In 1763, the President of the Council of Castile converted this densely wooded area into a paseo (promenade) with gardens and fountains, regaining its original function as a place of leisure. The construction of the Villa Comunale dates back to 1780 with King Ferdinand IV of Bourbon, who wanted a place for himself and the nobility to stroll, meet and relax. With the Unification of Italy, the villa became 'National' and the entire population was allowed access to it;

- The Royal Sites of Capodimonte and Pardo

Hunting activity is an aspect that is reflected in urban development policies. This led to the establishment of the royal sites, which in Naples were commissioned by Charles III. Capodimonte is an example of such urban and architectural typology, in which great similarities can be observed with the real sitio del Pardo in Madrid;

- Real Albergo dei Poveri and Cuartel de Conde Duque

The Real Albergo dei Poveri is part of the building renovation programme of King Charles III of Bourbon: it covers an area of 103,000 m² with a 400 m long façade and three inner courtyards. The construction of the Conde Duque began in 1717 by order of Felipe V: over 25,000 m² of surface area, 228 metres of façade lines (including a baroque one carved in stone), a large central square, two side patios and very large spaces for the cavalry;

- Real Orto Botanico and Real Jardín Botánico

The design of the Botanical Garden of Naples was initially endorsed by King Ferdinand IV and was realised in 1807 by order of Joseph Bonaparte. Inside is the Serra Monumentale, a masonry structure leaning against the northern part of the surrounding wall and positioned in axis with the main entrance to the Garden. Real Jardín Botánico de Madrid was built in 1774, commissioned by King Charles III, near the Paseo del Prado. The project was executed by Francesco Sabatini and Juan de Villanueva, who designed the Pabellón de Villanueva inside the garden, characterised by a Neoclassical style;

- Different construction materials

In Naples, the most commonly used materials are yellow tuff (Church of Santa Chiara) and piperno (Palazzo Orsini di Gravina). The Real Albergo dei Poveri is part of the building renovation programme of King Charles III of Bourbon: it covers an area of 103,000 m² with a 400 m long façade and three inner courtyards [5]. The construction of the Conde Duque began in 1717 on the orders of Felipe V: more than 25,000 m² of surface area, 228 metres of façade lines (including a baroque one carved in stone), a large central square, two side patios and very large spaces for the cavalry. In Madrid, on the other hand, brick (Iglesia de San Martín) and granite (Puerta de Toledo) are identified.



Figure 3. Workshop final project produced by students.

4 MEETING TO PRESENT THE OFFER OF UPM AND SPSB

The first meeting was held in Naples on June and the second in September in Madrid, but both were open to remote participants. This made it possible to involve students from each location who were either enrolled at that university for their entire course of study or matriculated as Erasmus students for a semester or for the year. Online participants, from both polytechnic schools, were able to see professors and students from both locations and listened their presentations about the contents of their courses and about innovative topic for the final works of thesis. The team of professors introduced the organization of teaching for the courses on building engineer and also the research activities of the two technology research laboratories, introducing the research groups of TEMA and CITTAM laboratories. Undergraduate and PhD students presented their thesis work in collaboration between the two polytechnic schools. It was clear from the presentations that there are many possibilities for collaboration on many topics of didactic and scientific in-depth study, and for this reason, even professors from the graduate program who have not yet done an Erasmus short mobility and who could carry out cycles of lectures abroad were involved. Caring for relationships via Internet connection, both visual and audio, is already proving to be a successful strategy for strengthening ties of European faculty groups without affecting the cost of mobility, which would still be individual and would not have the same synergy effects.

5 CONCLUSIONS

The collaborative experience described in this paper was activated in 2022 but derives from a more than ten-year agreement between the Building Engineering Departments of the Universities of Naples Federico II and Polytechnic of Madrid and from the post-pandemic need to meet and inform students of the long scientific collaboration process carried out together and of the positive results of the exchanges of students, docents, knowledge and, above all, teaching experiences and teaching methods. The Italian technical school is much more theory-oriented than the Spanish one, with students more accustomed to studying continuously and producing a group project in a short period of time. The Spanish teaching method is much more practical, starting from the exhibition of construction technologies in the construction museum of the School of Construction, but also from the construction equipment in the classrooms dedicated to technical installations and restoration, for example.

The exchanges over the past few years have certainly given rise to interesting ideas for the teachers of both technical schools, but the most important discovery has been to understand the complementarity of teaching methods and thus the need to act together in European education with a Double Degree project that will start in 2023 and will involve those students who wish to spend half their study period in Madrid and half in Naples. In this way, as Erasmus students with a double degree, they will be able to live in two prestigious European capital cities that shared a common history and the same king during a period of great cultural vitality for Europe.

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