

SCHOOL OF ARCHITECTURE OF FLORENCE – ITALY

INTERNATIONAL CURRICULUM ON ARCHITECTURAL DESIGN

RESTORATION LABORATORY

*Educational goals*

- To acquire knowledge of the culture of restoration, from the theoretical projects of the 19<sup>th</sup> century via the declarations of principle of the Restoration Charters, to the latest expressions of restoration culture for the conservation of historic buildings, both ancient and modern, urban centres, historic gardens, archaeological heritage, territory and landscape.
- To learn techniques for surveying and graphical representation – manual and computerised – of buildings and places of historic and artistic interest, including the knowledge and use of highly advanced techniques (laser-scanner and similar).
- To understand the importance of analysing buildings through historical research and the analysis of original sources, direct investigation of structures, structural surveying, conventional and digital photographic documentation, non-destructive surveys with a high technology content (thermography, georadar, etc.).
- To learn to read forms of degradation and impairment in buildings and in the territorial areas under examination, and to represent that reading using international codes, using traditional and computerised methods, as an integral part of the conservation project.
- To acquire skills for surveying the materials of historic architecture, how they are worked and used, and how they behave over time. Special emphasis is placed on analysing materials: stone, wood, simple and complex masonry and more recent reinforced concrete and modern metal materials.
- To learn how to prepare a restoration project throughout all the phases of the project, from the survey to the potential restoration approaches, from structural consolidation to proposals for reusing disused complexes. To prepare for checking regulations and laws governing the technological upgrading of historic architecture in a manner compatible with the existing structures and to learn the technical and bureaucratic procedures for drawing up a restoration project in modern times.
- To be aware of the complexity and uniqueness of restoration issues, particularly in relation to the delicate balance between old and new architecture, old and new materials, and the general issue of contemporary addition while understanding a place's identity, and the requirements of conservation versus free expression.
- To acquire a knowledge and direct experience of the manifold topics and issues arising on a restoration site.

### *The Restoration laboratory work*

The restoration laboratory complements the general students' training experiences by providing information on conceptual stages, working tools, regulatory data, and the significance of and methods for preparing all the phases involved in a modern-day restoration project. Following the theoretical teaching and its application in the field, through visits to restoration sites, individual students prepare a project that is as comprehensive as possible in terms of both the definition of each its stages, from survey to proposal, and the progression from the general concept to the detailed development of certain parts, elements and construction systems.

*Specific attention is given to contemporary additions to the historical building and site, the amazing dialogue between antique and contemporary architecture.*

Educational goals are: to learn how to prepare a restoration project for a specific historic site/building, from the survey to the potential restoration approaches, from structural consolidation to proposals for reusing disused complexes. To prepare for checking regulations and laws governing the technological upgrading of historic architecture in a manner compatible with the existing structures. To be aware of the complexity and uniqueness of restoration issues, particularly in relation to the delicate balance between old and new architecture, old and new materials, and the general issue of contemporary addition while understanding a place's identity, and the requirements of conservation versus free expression.

Prof. Maurizio De Vita - RESTORATION

Prof. Valentina Bonora - GEOMATIC FOR BUILT HERITAGE

Prof. Giacomo Tempesta - STATIC AND STABILITY OF MASONRY STRUCTURES