

CONSERVATION OF VENICE AND ITS BUILT HERITAGE

(Materials & techniques, decay and conservation)

Columbia Venice Summer Program 2019

INSTRUCTOR

Mieke Van Molle

COURSE SCHEDULE

Wednesday mornings and Fridays whole day

BACKGROUND

Venice has developed over the centuries into one of the most remarkable cultural patrimonies in the world due to a series of unique historical, geographical, social and political circumstances. The historic city of Venice together with its Lagoon is since 1987 inscribed on the UNESCO World Heritage List as an extraordinary architectural masterpiece, comprising diverse architectural styles and historical stratifications but preserving a coherent unit.

After the big flood of '66 which put in evidence the dramatic conservation problems of the city and its architectural and artistic heritage, Venice has acted as an international field laboratory for the conservation of historical monuments, which contributed to the development of modern conservation methodology as multidisciplinary activity.

The state of conservation of the historic City and its Lagoon, closely followed by the UNESCO World Heritage Center, is now also threatened by excessive tourist pressure, extensive water traffic and large-scale infrastructure projects, whereby the site risks to be inscribed on the list of the World Heritage in Danger.

PROGRAM OBJECTIVES AND CONTENT

The course aims at raising awareness about the importance of conservation and maintenance by conveying methods & principles through the particular example of Venice, where many conservation problems are concentrated and intensified due to its location in an aggressive lagoon environment and the proximity of the large industrial area of Marghera. The safeguarding of Venice will also be seen under the perspective of the fragile modern urban community beyond the mere physical survival of the city.

The program is structured in a progressive learning process, providing participants with an understanding of the Built Heritage of Venice, its historical development, construction techniques and building materials, aimed at gaining insight in the related conservation problems. Students are first introduced to the particular conservation problems of the city of Venice and its Lagoon environment. The course then addresses the historical growth and architectural development of Venice, its specific construction techniques and its large variety of stone materials, originating from all over the Mediterranean. It subsequently focuses on the multidisciplinary conservation process, including the

diagnostic survey, the different decay mechanisms and finally offering an overview of the conservation treatment.

The city of Venice gives plenty opportunity for practical learning, where class lectures are directly illustrated on site through walking tours, on-site observations, as well as visits to conservation projects and laboratories. The students will furthermore have the opportunity to conduct a diagnostic group research, consisting in a condition survey of a historical building, stimulating interrelated research of historical findings and on-site examination, thus putting in practice the diagnostic conservation methodology in a real context. Each student will also carry out a small research assignment in support of Save Venice's efforts towards the preservation and restoration of the historic artistic heritage of Venice.

Course requirements and grading

Students are required to attend and actively participate in all course activities. They should complete all assigned readings before the related class meeting so as to engage with the topic & contribute to class discussions and are expected to draw also on these source materials for their research papers.

Students should be flexible for possible required changes in the scheduled program, especially related to site visits. It is important to bring your camera for documentation as well as closed comfortable shoes with rubber soles (e.g. sneakers) for possible visits to ongoing conservation sites.

Grading will include active class participation (25%), a written and documented research paper to be completed at mid-term (25%), as well as a documented end-term research (written paper 25% and oral presentation 25%). Detailed information will be given during the course.

Academic Honesty

Please read and carefully review Columbia's University's Undergraduate Guide to Academic Integrity at www.college.columbia.edu/academics/integrity. Academic integrity is expected of all students and plagiarism or any other form of academic dishonesty will not be tolerated. Offenses will result in a failing grade and will be referred to the Dean's Office.

TENTATIVE CURRICULUM AND READINGS

Useful reference material:

- Overview of architectural history and styles with proper terminology:
The Grammar of Architecture, ed. Emily COLE, Boston - New York - London, 2002, selections.
- Glossary of architectural terms and Venetian words:
Deborah HOWARD, *The Architectural History of Venice*, New Haven & London, 2002: *Glossary of Architectural Terms and Venetian Words*, p. XIII-XVI.
- Biographical notes on the architects of Venice:
Richard GOY, *Venice. The City and its Architecture*, London, 1977: *Biographical Notes on the Architects of Venice*, p. 308-309.

- Short bibliography on Venetian architecture, outdoor sculpture and restorations

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WEEK 1

Wednesday, June 12

Introduction to Conservation in Venice

Teaching method: PPT presentation

Readings:

- *Venice Restored*, UNESCO, 1978, p. 7-9 and 29-41.
- Augusto GHETTI and Michel BATISSE, *The Overall Protection of Venice and its Lagoon*, in *Nature and Resources*, 19, 4, 1983, p. 1-13.
- Bernard M. FEILDEN, *The Principles of Conservation*, in *Conservation of Historic Stone Buildings and Monuments*, Washington D.C., 1982, p. 22-30.

Friday, June 14

Venetian Perspectives: Historical Development of Venice and its Architecture

Guest lecturer: Paola Modesti, Architectural Historian, Università degli Studi di Trieste
& Venice International University

Teaching method: PPT presentation + walking tour

Readings:

- Richard GOY, *Venice. An Architectural Guide*, New Heaven, 2010: *Introduction*, p. 3-19.
- Deborah HOWARD, *Venetian Architecture*, in *A Companion to Venetian History 1400-1797 (Brill's Companions to European History)*, 2013, p. 743-778.
- Deborah HOWARD, *The Architectural History of Venice*, New Haven & London, 2002: Chapter 3, *The Medieval City. Building Materials and Techniques*, p. 56-64.

WEEK 2

Wednesday, June 19

Characteristics of Venetian Construction Techniques

Teaching method: PPT presentation

Readings:

- Mario PIANA, *Lagoon Building and Safeguarding Problems*, from: *Venice and its Lagoons. World Heritage, a Dialogue between Cultures: which Future?*, n.d., 5 p.
- Richard GOY, *Venice. The City and its Architecture*, London, 1997: Part I.3, *Constructing a City*, p. 46-57.
- Mario PIANA, *Marmorino Plasters in Venice between the XVI and XVII Centuries*, in *Scientific Research and Safeguarding of Venice 2005. CORILA Research Program 2004-2005*, IV, Venezia, 2006, p. 71-90.

Friday, June 21

Conservation vs Restoration

Historical restoration interventions & current conservation and maintenance approach

Examples of St. Mark's Basilica and the Doge's Palace

Readings:

- *Charter of Venice. International Charter for the Conservation and Restoration of Monuments and Sites 1964*, in *US/ICOMOS Scientific Journal*, vol I, n° 1, 1999, p.7-8.
- Wolfgang WOLTERS, *The Doge's Palace in Venice. A Tour through Art and History*, Berlin - München, 2010, selection.

- Richard GOY, *Venice. An Architectural Guide*, New Heaven, 2010: *The Basilica of San Marco*, p. 197-204.

WEEK 3

Wednesday, June 26

Overview of Stone Deterioration Processes

Teaching method: PPT presentation

Readings:

- Giorgio TORRACA, *Porous Building Materials. Materials Science for Architectural Conservation*, Rome 1988: Chapters II – III, p. 19-47.
- *Air Pollution and Conservation. Safeguarding our Architectural Heritage. Introductory Information on an Interdisciplinary Symposium held in Rome October 1986*, Gothenburg, 1986, p. 14-16.
- Lorenzo LAZZARINI, *General Issues on the Deterioration of Stone*, in *Proceedings of the Interdisciplinary Workshop "The Building Stone in Monuments"*, Athens, 2002, p. 149-160.

Friday, June 28

The Stones of Venice and their Decay

Visit to the LAMA Laboratory for the Analysis of Ancient Materials, Università IUAV di Venezia

Visit to St. Mark's Square and Basilica

Guest lecturer: Lorenzo Lazzarini, Petrographer, Università IUAV di Venezia

Teaching method: Lecture & visits

Readings:

- Lorenzo LAZZARINI, *The Marbles of the Palace*, in *I Marmi del Doge. Design e ospitalità*, Consorzio Marmisti Chiampo, 2009, p. 29-55. (including catalogue of stones and marbles)
- Giorgio TORRACA, *The Application of Science and Technology to Conservation Practice*, in *Science, Technology and European Cultural Heritage, Proceedings of the European Symposium, Bologna 1989*, Butterworth-Heinemann, Oxford, 1991, p. 221-232.
- Lorenzo LAZZARINI, *Pietra d'Istria: Quarries, Characterisation, Deterioration of the Stone of Venice*, in *12th International Congress on the Deterioration and Conservation of Stone*, Columbia University, New York, 2012, 16 p.

WEEK 4

Wednesday, July 3

Visit to the San Sebastiano Church and the ongoing Save Venice conservation project

Readings:

- *Churches of Venice. The Museum in the City*, ed. Chorus, Venezia, 2002: *San Sebastiano*, p.121-122.
- *Save Venice Inc. Newsletter 2016/17 and 2017/18*, selections.
- *Sponsorship Opportunities in the Church of San Sebastiano*, ed. Save Venice Inc., 2013 (?)

Friday, July 5

The Diagnostic Process and Morphology of Stone Decay

Teaching method: PPT presentation

Readings:

- UNI-Beni Culturali 11182 /2006, *Cultural Heritage. Natural and Artificial Stone. Description of the Alteration – Terminology and Description*, Italian Glossary with English translation

- Marisa LAURENZI TABASSO, *Stone Conservation in the Last Few Decades: Conceptual & Technical Developments*, in *Proceedings of the Interdisciplinary Workshop "The Building Stone in Monuments"*, Athens, 2002, p. 309-317.
- NORMAL Recommendation 20/85, *Conservation of Stone Material: Project Development, Execution and Preliminary Evaluation*, Rome, 1987, p. 1-6.

Diagnostic Group Research on a historical building

Readings & documentation will be distributed during the course

WEEK 5

Wednesday, July 10

Overview of Stone Conservation Practice / Materials & Methods

Teaching method: PPT presentation

Readings:

- Marisa LAURENZI TABASSO, *Materials for Stone Conservation*, In *Actes du Congrès International sur la conservation de la pierre et autres matériaux*, Paris, 1993, p. 54-58
- Giorgio TORRACA, *Porous Building Materials. Materials Science for Architectural Conservation*, Rome 1988: Chapter VII, *Conservation of Stone*, p. 83-95.
- NORMAL Recommendation 20/85, *Conservation of Stone Material: Project Development, Execution and Preliminary Evaluation*, Rome, 1987, p. 6-16.

Friday, July 12

Visit to a conservation project/worksite - depending on availability and authorization

Related readings to be defined

Diagnostic Group Research on a historical building

Readings & documentation will be distributed during the course

WEEK 6

Wednesday, July 17

Mortar mixing demonstration

Reading:

- Giorgio TORRACA, *Porous Building Materials. Materials Science for Architectural Conservation*, Rome, 1988: Chapter IV: Binders, p. 65-82.

Friday, July 19

Participants' Presentations on the findings of their Diagnostic Group Research

MvM, January 2019