

## Mission

The course is part of the multidisciplinary project “Laboratory of Place”, involving the Canova Association and the Polytechnic of Milan in partnership with national and international centres of higher learning collaborating in a series of summer workshops. The workshop is supported by ICOMOS Italia (International Council on Monuments and Sites) and ISPRS (International Society for Photogrammetry and Remote Sensing). The mission of “Laboratory of Place” is to combine Geomatics techniques and restoration for interdisciplinary knowledge and the preservation of historical and architectural heritage.

The real case of study is the Ossola valley stone architecture heritage and the object of the study will be some stone buildings in the abandoned village of Ghesc.

**The main topic of the school is the survey techniques designed for three-dimensional modeling of ancient buildings and the extraction of all metric information useful in planning reconstruction restoration, maintenance and conservation of cultural heritage.**

The participants, divided into groups, will deal with 3D surveying of the building, the extraction of metric and material information from the acquired data information with the aim to understand the original morphology and provide material for a preliminary project for the recovery and reuse of the structure.

The aim of the course is to provide the minimum theoretical tools and insights on latest techniques, with day and evening workshops. Practical activities will be structured so that each participant can experience first hand the various survey techniques using a variety of equipment and software. The major focus will be on operational issues related to the measurement technique using TLS (Terrestrial Laser Scanner), the processing of the acquired data for the extraction of plans, sections and the creation of 3D models. Simultaneously, aerial (with UAV) and terrestrial close range photogrammetric methods will be presented, focusing training activities on three-dimensional reconstruction of the site from images and the production of photogrammetric classics such as orthophotos.



Theoretical notes on architecture in the Ossola area, on construction techniques and use of traditional material will also be highlighted. Understanding building materials and the identification of ancient building techniques are very important also during the survey phase in order to plan and design the right measuring activities and representation methods.

## Recipients

The course is open to students of architecture, archaeology and engineering as well as professionals in Cultural Heritage and the Historic Preservation sector.

The Laboratory of Place can be a valuable source for those interested in deepening their own personal understanding of the latest survey and representation methods as well as its utilization in a contemporary business practice.

## Summer school program

Date and Location: **July 26 to August 4, 2017** in Ghesc

The program includes both practical and theoretical lessons. Main topics involving in-depth study will be 3D Survey Techniques applied to Cultural Heritage, TLS (Terrestrial Laser Scanner) instrumentation and Close Range Photogrammetry techniques. During the course, data will be elaborated in the field in order to assure complete training for the students.

Scheduled evening seminars:

Dr. Maurizio Cesprini  
“Ossola Valley Architecture – Building techniques”

Arch. Paolo Volorio  
“Ossola Valley Architecture – History and evolution”

Dr. Marta Caroselli  
“Ancient plasters and mortars”

Eng. Francesco Fassi - Arch. Alessandro Mandelli  
“Online visualization techniques” – “BIM system for Cultural Heritage”



MAXIMUM NUMBER OF PARTICIPANTS: 12

During the school, the participants will be divided into groups. A final examination, which consists in a public presentation of the group work, is scheduled on the last day of the workshop.

All course participants are encouraged to bring a personal laptop (with mouse) and a digital camera.

## Tutors

**Prof. Cristiana Achille**  
**Prof. Eng. Ph.D Francesco Fassi**  
**Arch. Ph.D Alessandro Mandelli**  
(Politecnico di Milano –3D Survey Group)

**Dr. Ph.D Marta Caroselli**  
(SUPSI - Istituto materiali e costruzioni  
Dipartimento ambiente costruzioni e design)

**Eng. Ph.D Fausta Fiorillo**  
(Università degli studi di Salerno – DICIV)

**Ken Marquardt**  
**Dr. Maurizio Cesprini**  
(Canova Associazione)

With the welcome participation of:  
**Arch. Paola Gardin**  
**Arch. Paolo Volorio**

With the welcome support of:

**Eng. Arch. Maurizio Di Stefano**  
ICOMOS Italia President

**Prof. Stefano Della Torre**  
(Politecnico di Milano - Director Dep. A.B.C)



**Organized by:**  
Politecnico di Milano  
Department A.B.C. Architecture Build Environment,  
Construction Engineering

**School directors:**  
Cristiana Achille, Francesco Fassi, Ken Marquardt

## Registration form

To be delivered or shipped **WITHIN 30 April 2017** to the secretariat of the course (via mail) together with a CV.

I authorize the inclusion of my data in your computer files, in accordance with the provisions of the law on the protection of personal data.

I authorize to use my personal data to send communications on continuing education courses and the development of a statistical nature. At any time, in accordance with Legislative Decree 196/03., I can still have access to my data, request the modification or cancellation.

YES  NO

FIRST NAME: \_\_\_\_\_

SECOND NAME: \_\_\_\_\_

DATE AND PLACE OF BIRTH: \_\_\_\_\_

EDUCATION: \_\_\_\_\_

C.F. / IVA: \_\_\_\_\_

TITLE : \_\_\_\_\_

SOCIETY: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

CAP: \_\_\_\_\_

TOWN: \_\_\_\_\_

Phone: \_\_\_\_\_

MOBILE PHONE: \_\_\_\_\_

E - mail: \_\_\_\_\_

Data: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_

### Important Dates:

26.07.2017 - 04.08.2017

Registration before: 30 April 2017.

Communication of acceptance: 15 may 2017

### Venue:

Ghesc - Montecrestese - Domodossola

Registration fee: € 750.

The fee includes accommodation and food (breakfast and lunch) at Villa Raghezzi (Preglia di Crevoladossola)



- 250€ to be paid to Politecnico di Milano

IBAN IT98L0569601620000001840X18

BIC/SWIFT: POSOIT22

Addressed to: Politecnico di Milano Dept. A.B.C., by Banca Popolare di Sondrio, Agenzia 21 Via Bonardi, 4

Reason for payment: Summer school Ghesc 2017

- 500€ to be paid to the Canova Association at the summer-school opening day

### For further information please contact:

cristiana.achille@polimi.it

francesco.fassi@polimi.it

associazione@canovacanova.com

### ... or see the web sites.

<http://www2.isprs.org/commissions/comm2/wg8/events.html>

<http://www.sitech-3dsurvey.polimi.it/>

<http://www.canovacanova.com>

# Laboratory of Place 2017 Ghesc and surroundings History, survey, evolution

Summer School: Surveying Cultural Heritage  
6th Edition

July 26 to August 4, 2017



Promoters:



**POLITECNICO**  
MILANO 1863



**ASSOCIAZIONE CANOVA**

With the support of:



Sponsor:



**open technologies**

