

SUMMER SCHOOL

Vione: history, restoration and structural rehabilitation of the rural mountain heritage

Brescia - Vione, Italy
June 24-28, 2024

University of Brescia

Department of Civil, Environmental, Architectural Engineering and Mathematics

ORGANISERS AND SUPPORTERS:



SUPPORTERS:



AIM AND SCOPE

The Summer School “Vione: history, restoration and structural rehabilitation of the rural mountain heritage”, promoted by the University of Brescia (June 24-28, 2024), is part of the “Vione Permanent Laboratory” project, which includes a series of activities organized in collaboration with the Municipality of Vione and the Mountain Community of Valle Camonica. Vione rises in northern Valle Camonica, an Italian mountain area neighboring the Swiss Alps, on the Eastern side of Lombardy.

The project aims to increase knowledge, recovery and valorization of mountain villages. Many examples of traditional mountain construction are preserved in Vione: these examples are essential both to understand rural mountain building traditions and to preserve them through appropriate intervention projects.

The course, which will be held between Brescia and Vione, will investigate, first of all, the historical stratification of Vione, the construction and strengthening techniques, the types of materials and their origin, the state of conservation of the buildings and the most frequent structural systems used. Knowledge of the characteristics of the historical buildings will highlight the main critical issues of the construction heritage. The lectures will be completed with in-depth studies on structural behavior of wooden floors, wooden roofs, vaults, arches and masonry walls topics. Hence, one of the main goals of the Summer School is to offer an innovative background on existing structures.

Participants, through laboratory activities, will be able to investigate real case studies refining their ability to read and interpret historical buildings, using the most appropriate intervention techniques. The intervention projects designed have the goal of guaranteeing the maintenance continuity of mountain rural architectural heritage, encouraging its reuse by improving its energy efficiency, usability conditions and structural performance.

SPONSORS:



CONTACTS

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ORGANIZING COMMITTEE

Fausto Minelli, Full professor
Giovanni Plizzari, Full Professor
Carlotta Coccoli, Associate Professor
Irene Giustina, Associate Professor
Barbara Scala, Associate Professor
Luca Facconi, Assistant Professor
Elisa Sala, Assistant Professor

WITH THE PARTICIPATION OF

Letizia Barozzi, Ph.D in History of Art
Francesca Tanghetti, PHD candidate Civil,
Environmental Engineering, International
Cooperation and Mathematics (DICACIM)

COURSE OUTLINE

- Vione and Valle Camonica: historical stratification and main communication routes;
- Materials and construction techniques from the mountainous area of Valle Camonica;
- Tools and cognitive investigation for restoration (stratigraphic analysis elements of architecture, degradation materials and pathologies mapping through the use of codified terminologies);
- Reuse of rural buildings by improving their energy efficiency and usability conditions;
- Reinforcement techniques for: wooden floors, wooden roofs, vaults, arches and masonry walls;
- Interaction between masonry wall and wooden structures;
- Intervention strategies for the conservation and reuse project;
- Case studies on existing buildings.

INTERNATIONAL AND NATIONAL LECTURES

Jean-Pierre Albertani, Professeur, Université d'Architecture Paris la Villette
Dina D'Ayala, Full professor, UCL - University College London
Anna Maria Basso Bert, Soprintendenza archeologica, belle arti e paesaggio per le provincie di Bergamo e Brescia (Ministry of Culture)
Ezio Giuriani, Emeritus professor, University of Brescia
Fausto Minelli, Full professor, University of Brescia
Giovanni Plizzari, Full professor, University of Brescia
Carlotta Coccoli, Associate Professor, University of Brescia
Irene Giustina, Associate Professor, University of Brescia
Barbara Scala, Associate Professor, University of Brescia
Elisa Sala, Assistant Professor, University of Brescia

WHO SHOULD ATTEND

University students (especially engineering and architecture students), Graduate students, PhDs, post-doctoral researchers, university staff and practitioners willing to do research and application in the field of history, restoration and structural rehabilitation of the rural mountain heritage.

LOCATIONS

June, 24-26, 2024 | Room B0.3, University of Brescia, DICATAM: via Branze, 43 - Brescia ITALY
June, 27-28, 2024 | Vione town hall: Piazza Vittoria, 1 - Vione (BS) ITALY

FEE AND PAYMENT:

Students, PhDs, research fellows belonging to DICATAM or UNITA-University Montium alliance: free of charge (for students, a guest-house in Vione (26-28 June, 3 nights) will be available for free. There are agreements with local café to reduce prices)

Engineers registered with the Brescia Engineer Chamber (30 CFP): 200€+IVA

For everyone else: 250€+IVA

The number of participants is limited to a maximum of 30.

For all registrations and payments: Valentina Loli | valentina.segreteria@ordineingegneri.bs.it

For assistance in any accommodation facilities: Elisa Sala, UNIBS | elisa.sala@unibs.it

For registration to Brescia Engineer Chamber CFP:

www.ordineingegneri.bs.it -> area "FORMAZIONE" -> "OFFERTA FORMATIVA DELL'ORDINE"

ORGANISERS AND SUPPORTERS:



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Comunità Montana
di Valle Camonica



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dei Segni



Ordine degli Architetti,
Pianificatori, Paesaggisti e Conservatori
della Provincia di Brescia



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COURSE SCHEDULE

Monday June 24, 2024

Room B0.3 | University of Brescia – DICATAM, via Branze 43, Brescia

10.00-11.00: *Registration*

11.00-13.00: Professor I. Giustina | Ing. E. Sala - *Vione and Valle Camonica: historical stratification of the area, traditional architecture, construction materials and techniques*

14.00-17.00: Professor C. Coccoli | Professor B. Scala - *Knowledge and practices of repair of existing built heritage*

Tuesday June 25, 2024

Room B0.3 | University of Brescia – DICATAM, via Branze 43, Brescia

10.00-13.00 /14.00-15.00: Arch. A.M. Basso Bert | Professor E. Giuriani | Professor G. Plizzari | Professor F. Minelli - *Assessment and strengthening techniques of rural buildings made of masonry and wood*

15.00-18.00: Professeur J.P. Albertani - *Wooden structures for floors and roofs and wood panelling*

Wednesday June 26, 2024

Room B0.3 | University of Brescia – DICATAM, via Branze 43, Brescia

10.00-13.00: Professeur J.P. Albertani - *Methods for increasing the wood durability and application cases*

Thursday June 27, 2024

Town Hall of Vione, Piazza Vittoria, 1, 25050 Vione BS

10.00-11.00: Arch. G. Azzoni - *Presentation of the "Vione Laboratorio permanente" project*

11.00-13.00: *Technical visit in Vione and Laboratory work*

14.00-18.00: Professor D. D'Ayala - *Introduction to masonry building and FaMIVE* Procedure*

Friday June 28, 2024

Town Hall of Vione, Piazza Vittoria, 1, 25050 Vione BS

10.00-13.00: Professor D. D'Ayala - *FaMIVE* software applications*

14.00-18.00: *Laboratory work*

*The FaMIVE Procedure is a macro-element modelling approach which allows to assess the seismic vulnerability of large population of historic masonry structures, producing capacity curves and fragility functions, based on ultimate lateral strength capacity and elastic and ultimate displacement (© EPICentre 2024 D. D'Ayala).

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For more information and updates:

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VENUES

BRESCIA

Set between Milan and Verona at the foot of the Apls, Brescia is the second largest city in Italy's northern Lombardy Region, with 200.000 inhabitants. The city's rich history dates back to pre-Roman times. Among the many great local sights are the Castel on the top of the Cideo Hill, the "Duomo Vecchio" (Old Cathedral, also called "La Rotonda"), the "Duomo Nuovo" (New Cathedral) nearby and the Loggia Palace a Renaissance palace situated in the eponymous square. Brescia is also famous for its lakes (Garda, Iseo and Idro) surround by mountains and vineyard-covered hills.

VALLE CAMONICA

Valle Camonica is located in Eastern Lombardy and is one of the largest valleys in the central Alps; with a surface area of around 1518,19 km² and with 140.992 inhabitants the area extends from 1883 metres above sea level in Tonale Pass right down to Iseo Lake, 90 km further down the valley. Valle Camonica is known all over the world for its incredible richness and variety of rock carvings: thanks to these in 1979 the valley became the first Italian location to become a UNESCO World Heritage Site with more than 180 different sites located in 24 towns. The entire valley is crossed by the Oglio river, the fifth largest river in Italy that starts in Ponte di Legno where the two streams of Narcanello and Frigidolfo meet to then feed Iseo Lake and end its long journey in the Po River.

VIONE

Vione is amongst one of the most interesting centres in Valle Camonica, with picturesque sights and antique portals. Vione and its hamlets boast some very rustic architecture: arches and finely made windows, lineal structures and buildings constructed all the same size, a phenomenon particular to this valley. Vione is also known for the recent findings of longboard tombs and for the conservation of the porches and the six towers which defended the castle. From Vione it is possible to reach the beautiful "Valle di Canè", in the Stelvio National Park, here there is some wonderful alpine scenery, small typical barns in green fields surrounded by dense woodland.

How to reach University of Brescia

By air from these airports:

Milano Orio al Serio
Verona Villafranca
Milano Linate

By car:

Highway A4, exit Brescia Ovest
Highway A21, exit Brescia Centro

By train:

Brescia Railway Station

How to reach DICATAM

DICATAM can be reached by Metro
(Stop: Europa)

How to reach Vione (from Brescia)

By car:

SP510 and SS42

By train and bus:

Edolo Railway Station and [BS2 bus](#)

For students, a guest-house in Vione will be available for free.

For more information and updates:

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University of Brescia

e-mail: elisa.sala@unibs.it

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