

NATURAL RISKS AND COMMUNITIES

International seminar

First-year final meeting of the bilateral cooperation project of “Particular Relevance” Italy-USA:
RE-LAND, RESilient LANDscapes. PI: Massimo Sargolini
(Italy-USA, Science and technology cooperation)

School of Architecture and Design, Viale della Rimembranza, Sant’Angelo Magno, room C012
Ascoli Piceno – 19 December 2019 – 10.00-18.45

Morning agenda

10.00-10.30: Registration of participants – Welcome Coffee

10.30-10.45: Welcome greetings

Giuseppe Losco, Full Prof. Arch., Director of the School of Architecture and Design, University of Camerino
Graziano Leoni, Full Prof., Eng., Vice Rector of the University of Camerino

10.45-11.15: Introductory remarks. Recap of the August meeting (University of California Los Angeles). Agenda review
Massimo Sargolini, Full Prof., Arch., PI of RE-LAND, University of Camerino, School of Architecture and Design
Flavio Stimilli, Research Fellow, School of Architecture and Design, University of Camerino

11.15-12.00: Presentation. Definition, evaluation and management of different natural hazards. Topics addressed:

- Hazards considered: earthquake, wind load, hurricanes, wildfire, and post-fire debris-flow
- Hazard characterization for design applications (building codes, policy documents). Discussion will include mechanisms for periodic updates as science evolves, and highlight possible gaps in the implementation.

Jonathan P. Stewart, Prof., P.E., Dpt of Civil & Environmental Engineering, University of California, Los Angeles

Paolo Zimmaro, Research Scientist & Lecturer, Dpt of Civil & Environ. Engineering, University of California Los Angeles

12.00-12.15: Discussion

12.15-13.00: Presentation. Interaction between climate change, natural hazards, cultural landscapes & communities

Topics addressed:

- Definition of different cultural landscapes and their vulnerability to the hazards considered;
- How climate change may affect each hazard;
- How climate change may affect cultural landscapes;
- Methods of assessing landscape heritage based on community perspectives;
- Identification of case histories from US and central Italy;
- Building capacity for climate adaptation in the cultural landscapes of central Italy.

Robert Z. Melnick, Prof. Emeritus, Department of Landscape Architecture, University of Oregon

Noah P. Kerr, Research Associate, Department of Landscape Architecture, University of Oregon

Ahmadreza Shirvani, Ph.D., Reserch Fellow, School of Architecture and Design, University of Camerino

13.00-13.15: Discussion

13.15-14.15: Lunch break

Afternoon agenda

14.15-15.00: Presentation. Cost-benefit analysis for natural-risk mitigation and Building Back Better

Topics addressed:

- Community resilience through mandatory retrofit ordinances;
- Critical review of methods for building scenarios (e.g. HayWired Scenario, Great ShakeOut Earthquake drills, etc.).

Keith Porter, Research Prof., Ph.D., P.E., Dpt of Civil, Envir. & Arch. Engineering, University of Colorado Boulder (*Skype*)

15.00-15.15: Discussion

15.15-16.00: Presentation. Multi-disciplinary approach for monitoring cultural heritage in seismic areas

Topics addressed:

- Research projects on disaster risk reduction in Italy and Europe focused on cultural heritage;
- Lessons learned from best practices (e.g. Pon MASSIMO project, etc.).

Massimo Musacchio, Researcher, National Institute of Geophysics and Volcanology, Italy (INGV)

16.00-16.15: Discussion

16.15-16.30: Coffee break

16.30-17.15: Presentation. Risk assessment for the built environment subject to natural hazards

Topics addressed:

- Rational and performance-based approach to the design, retrofit, and maintenance of the structures considered;
- Specific code provisions related to wind/hurricane loading.

Andrea Dall'Asta, Full Prof., Eng., School of Architecture and Design, University of Camerino

Michele Barbato, Prof., Ph.D., P.E., Dpt of Civil and Environmental Engineering, University of California Davis (*Skype*)

Fabio Micozzi, Research Fellow, School of Architecture and Design, University of Camerino

17.15-17.30: Discussion

17.30-18.15: Presentation. Risk-sensitive planning

Topics addressed:

- Links between planning and natural risk management;
- Engagement of local communities in planning and decision-making, to foster their preparedness and resilience.

Massimo Sargolini, Full Prof., Arch., PI of RE-LAND, School of Architecture and Design, University of Camerino

Ilenia Pierantoni, Post-Doc Research Fellow, School of Architecture and Design, University of Camerino

Flavio Stimilli, Research Fellow, School of Architecture and Design, University of Camerino

18.15-18.30: Discussion

18.30-18.45: Concluding remarks and second-year research outline

Massimo Sargolini, Full Prof., Arch., PI of RE-LAND, School of Architecture and Design, University of Camerino

Flavio Stimilli, Research Fellow, University of Camerino, School of Architecture and Design

Adjournment

[By participating in the morning and afternoon agenda, students will be granted one ECTS credit]