

## **Eugenio Morello** *updated July 24, 2014*

### *Business Address*

Politecnico di Milano | DASTU  
Laboratorio di Simulazione Urbana Fausto Curti  
Via E. Bonardi, 3 | Milano, MI, 20133 ITA  
T ++39-02-2399-5561 | F ++39-02-2399-5435  
E eugenio.morello@polimi.it  
W www.dastu.polimi.it | W www.eugeniomorello.eu

### *Home Address*

Viale Romagna, 59  
20133 Milano, MI, ITALY

An architect by education, Eugenio Morello was Assistant Professor in Urban Design at POLIMI (July 2010-June 2014). He is also research scientist at the Laboratorio di Simulazione Urbana Fausto Curti, Department of Architecture and Urban Studies (DASTU). His research interest is urban environmental quality and urban morphology. He works in particular with digital simulations and prediction models for the integration of environmental aspects and energy systems within the design of sustainable neighborhoods. He was previously a Roberto Rocca postdoctoral fellow at the Human Space Lab, POLIMI (2009) and at the SENSEable City Lab, MIT (2008). He was also adjunct professor at POLIMI since 2006, where he taught urban design. He holds a Ph.D. in environmental design and building technology from POLIMI (2006).

---

## **EDUCATION**

### **Politecnico di Milano**

Milano, IT

(July 2010 – June 2014) Assistant Professor at the Dipartimento di Architettura e Pianificazione, Laboratorio di Simulazione Urbana Fausto Curti. Research focuses on future energy scenarios and the city.

### **Politecnico di Milano**

Milano, IT

(March 2009 – April 2010) Roberto Rocca Postdoctoral Fellow. Dipartimento di Architettura e Pianificazione, Human Space Laboratory and Laboratorio di Simulazione Urbana. Research focuses on sustainable urban design, in particular on the implementation of digital simulation tools for assessing the environmental performance of the urban form.

### **Massachusetts Institute of Technology**

Cambridge, MA

(February 2008 – present) Roberto Rocca Postdoctoral Fellow. Department of Urban Studies and Planning, Senseable City Laboratory. Research focuses on sustainable urban design, in particular on the implementation of digital simulation tools for assessing the environmental performance of the urban form.

### **Politecnico di Milano**

Milano, IT

(May 2006 – August 2007) BEST and ANDIL Postdoctoral Fellow. Department of Building, Environment, Sciences and Technology. Research focuses on sustainable urban design, in particular digital simulation tools for assessing the environmental performance of the urban form.

### **Politecnico di Milano**

Milano, IT

(May 2006) Ph.D. cum laude, Department of Building, Environment, Sciences and Technology. Thesis: *Urban Morphology and the Environmental Quality: Tools to Assess the Strategies for the Compact City at the Scale of Urban Design* (supervisor: Andrea Campioli).

### **Massachusetts Institute of Technology**

Cambridge, MA

(January 2005 – November 2005) Visiting Ph.D. candidate. Department of Urban Studies and Planning (DUSP), Senseable City Laboratory.

### **Politecnico di Milano**

Milano, IT

(2002) MSc in Architecture, cum laude. Thesis: *Pole Europe: esperienza di progettazione integrata a distanza*. Thesis as the result of the participation to the research program “POLE-Europe” on e-learning in architecture and urban design in Aargau (CH).

---

## AWARDS

(2014) Abilitazione Scientifica Nazionale – professore di II fascia – SSD 8/F1 08/F1 pianificazione e progettazione urbanistica e territoriale

(2010) WSEAS Conference Best Student Paper Award, Algarve, Portugal.

(2010) Winner of the Regione Lombardia Grant for a 3 years contract as research scientist at DiAP POLIMI, with the project “Usò del suolo e landscape urbanism verso il controllo del ciclo energetico e la qualità ambientale”. From 1/07/2010 to 30/06/2013.

(2008) Winner of the “Premio Tesi 2007” organized by the Ordine degli Ingegneri Provincia di Bolzano, 2nd prize.

(2008) Winner of the Roberto Rocca Post-doctoral Fellowship.

(2006) Winner of the ANDIL Fellowship.

(2005) DRIN 199750 scholarship by Fondazione Politecnico di Milano and Regione Lombardia to support the research visiting period at MIT.

(2003) Winner of the Politecnico di Milano 3 years scholarship as Ph.D. candidate.

---

## RESEARCH EXPERIENCE

**Politecnico di Milano, DASTU, Lab. di Simulazione Urbana** Milano, IT

Research named ‘Usò del suolo e landscape urbanism verso il controllo del ciclo energetico e la qualità ambientale’ on Urban Simulation and Modeling. (July 2010 – June 2014).

**Politecnico di Milano, DiAP Dept., Lab. di Simulazione Urbana** Milano, IT

Extension of the project named ‘Raster Cities’ linked to the Rocca Fellowship. (April 2009 – April 2010).

**MIT, DUSP, Senseable City Laboratory** Cambridge, MA

Research project named ‘Raster Cities’ linked to the Rocca Fellowship. The focus is the implementation of digital simulation tools for assessing the environmental performance of the urban form. (February 2008 – February 2009).

**MIT, DUSP, Senseable City Laboratory** Cambridge, MA

Project leader of the research project named ‘Trash Track’. It relies on the development of smart tags, which will be attached to different types of garbage in order to track in real time each piece of waste as it traverses the city’s sanitation system. The goal is to reveal the disposal process of our everyday objects and waste, as well as to highlight potential inefficiencies in today’s recycling and sanitation systems. (August 2008 – February 2009).

**Politecnico di Milano, BEST Department** Milano, IT

Energy efficiency of buildings, in particular investigation on the thermal performance of massive building envelopes (Politecnico di Milano in collaboration with ANDIL) (May 2006 – August 2007).

**Politecnico di Milano, BEST Department** Milano, IT

Research on the Urban Heat Island effect and the application of cool surfaces in the urban environment (Politecnico di Milano in collaboration with ItalCementi) (May 2006 – August 2007).

---

## TEACHING EXPERIENCE

**Politecnico di Milano, School of Architecture and Society**

MSc Energy and Urban Planning Studio (Fall Semester 2013) (Fall Semester 2012) (Fall Semester 2011). Main instructor together with Prof. Stefano Pareglio. Ex cathedra lectures and supervision of students with design reviews. Helped write assignments and exams.

**Politecnico di Milano, Faculty of Architecture and Society**

MSc Eco-Urban Design Studio (Fall Semester 2011) (Fall Semester 2010) (Spring Semester 2010). Adjunct professor. Main instructor Prof. Grazia Concilio. Ex cathedra lectures and supervision of students with design reviews. Helped write assignments and exams.

**Politecnico di Milano, DiAP. Dept., Ph.D. course in Territorial Design and Government**

Tutorship for Ph.D. candidates (Fall Semester 2010 – present). Ph.D. programme director Prof. Rossella Salerno. Supervision of Ph.D. candidates. Helped in organizing activities.

---

---

**Politecnico di Milano, Faculty of Architecture and Society**

MSc Eco-Urban Design Studio (Fall Semester 2010) (Spring Semester 2010) (Spring Semester 2009). Adjunct professor. Main instructor Prof. Lidia Diappi. Ex cathedra lectures and supervision of students with design reviews. Helped write assignments and exams.

**Politecnico di Milano, DiAP. Dept., Ph.D. course in Territorial Design and Government**

Tutorship for Ph.D. candidates (Fall Semester 2009 – Spring Semester 2010). Ph.D. programme director Prof. Fausto Curti. Supervision of Ph.D. candidates. Helped in organizing activities.

**University of Strathclyde, Glasgow, Master in Urban Design**

Urban Design Studio (2009). Visiting tutor. Main instructor Prof. Ombretta Romice. Ex cathedra presentations and supervision of students with design reviews. Helped write assignments and exams.

**Politecnico di Milano, Faculty of Architecture and Society**

MSc Eco-Urban Design Studio (Spring Semester 2009). Adjunct professor. Main instructor Prof. Sergio Porta. Ex cathedra lectures and supervision of students with design reviews. Helped write assignments and exams.

**Politecnico di Milano, Faculty of Architecture and Society**

MSc Eco-Urban Design Studio (Fall Semester 2007). Teaching Assistant. Main instructor Prof. Lidia Diappi. Presentations and supervision of students with design reviews. Helped write assignments.

**Politecnico di Milano, Faculty of Civil Architecture**

Bachelor - Urban Design Studio (Fall Semester 2008 – Spring Semester 2009) (Fall Semester 2007 – Spring Semester 2008) (Fall Semester 2006 – Spring Semester 2007). Adjunct professor with Prof. Sergio Porta (main instructor). Ex cathedra lectures and supervision of students with design reviews. Helped write assignments and exams.

---

**RECENT PRESENTATIONS**

*Participation to International Conferences with oral presentation and/or paper or poster:*

- (2013, September) “EAEA 2013: Envisioning Architecture”, Milan, Italy | full paper, oral presentation.
- (2012, July) “AESOP 2012”, Ankara, Turkey | full paper, oral presentation.
- (2011, September) “eCAADE 2011: Respecting Fragile Places”, Ljubljana, Slovenia | full paper, oral presentation.
- (2011, September) “EAEA 2011: Envisioning Architecture”, Delft, Netherlands | full paper, oral presentation.
- (2011, July) “PLEA 2011: The 27th Conference on Passive and Low Energy Architecture”, Louvain-la-Neuve, Belgium | full paper, oral presentation.
- (2010, September) “eCAADE 2010 Future Cities”, Zurich, Switzerland | full paper, oral presentation.
- (2010, May) “AGILE 2010”, Guimarães, Portugal | short paper, poster session, participation by Desthieux G.
- (2009, September) “CISBAT 2009: Renewables in a Changing Climate: From Nano to Urban Scale”, Lausanne, Switzerland | short paper, poster session.
- (2009, June) “PLEA 2009: The 26th Conference on Passive and Low Energy Architecture”, Quebec City, Canada | full paper, oral presentation by Gori V.
- (2009, June) “AGILE 2009”, Hannover, Germany | full paper, oral presentation by Desthieux G.
- (2008, November) “3D Geo-Info Conference 2008”, Seoul, South Korea | full paper and oral presentation.
- (2007, July) “II ICA Workshop on Geospatial Analysis and Modeling: Spatial Structure and Dynamics of Urban Environments”, Athens, GA, USA | oral presentation.
- (2006, February) “Systemic approach and microscale urban complexity”, POLIMI, Milano, Italy | oral presentation.
- (2005, November) “PLEA 2005: The 22nd Conference on Passive and Low Energy Architecture”. Beirut, Lebanon | full paper with oral presentation and short paper with poster.

*Recent Participation to Seminars and Workshops with oral presentation and/or paper:*

- (2014, June), “ISCN-GULF Conference 2014: “Pushing Boundaries”, Cambridge MA | Co-chair of WG2 and speech.
- (2013, November) “Green Project Festival”, Moscow, Russia | invited speech.
- (2013, November) “Seminário Internacional Brasil/Itália de Desempenho do Ambiente Construído”, Barão de Mauá, Centro Universitario Ribeirao Preto, SP, Brasil | invited speech.
- (2013, June), “ISCN-GULF Conference 2013: The Future is Now”, Singapore. Participation | invited speech.

---

(2013, June), "Simulation of ambient environment and urban design", Joint seminar CERMA – Laboratorio di Simulazione Urbana Fausto Curti, Nantes, France | invited speech.

(2013, March), "Energy and the City: Urban Design and Planning Perspectives", University of Princeton, Princeton, USA | invited speech.

(2012, December), "Energy and the City: Urban Design and Planning Perspectives", University of Cambridge, Cambridge, UK | invited speech.

(2012, June), "ISCN-GULF Conference 2012: Power of Partnership", Eugene OR, USA. Participation | invited speech.

(2012, May) "The challenges of Sustainable Urbanism: a research perspective" | oral presentation at the conference "Next Generation Sustainable Cities", Università Commerciale Luigi Bocconi, Milano.

(2012, March) "Energy efficiency and urban design, a challenge" | invited lecture at Università Cattolica del Sacro Cuore, ALTIS, MBA in Global Business and Sustainability.

(2011, June), "ISCN-GULF Conference 2011. Pathways to Progress: Demonstrating Campus Sustainability", Gothenburg, Sweden | poster presentation with B. Piga.

(2009, December) "A Vision of Sustainability: Building Technology, Communities and Design. An Italy-UK Workshop on Eco-Building". London, UK | oral presentation with prof. Alessandro Balducci.

(2009, November) "Workshop EFONET-PACT: Impacts on energy and environment of mobility in low carbon cities", Paris, France | round table discussion.

(2009, July) "Simulazione Urbana e Ambientale". POLIMI, Milano, Italy | oral presentation.

(2009, May) "Città Solari II". POLIMI, Milano, Italy | oral presentation.

(2009, March) "Raster Cities research". USI, Accademia dell'Architettura di Mendrisio | invited speech and workshop with students.

(2009, March) "Raster Cities research". EPFL, ENAC INTER LASIG, Lausanne | invited speech.

(2008, September) Presentation at Pecha Kucha Night Boston Volume #5 | invited speech to present Senseable City Lab research.

(2008, January) "SunScapes: Design strategies and tools". Domus Academy, Milano, Italy | invited lecture.

(2007, November) "Città Solari / Città Sostenibili". POLIMI, Milano, Italy | oral presentation.

(2007, June) "Laboratorio di Simulazione Urbana: work in progress". POLIMI, Milano, Italy | oral presentation with Rossella Salerno and Daniele Villa.

(2006, December) "Verso la qualità ambientale in Architettura", POLIMI, Milano, Italy | oral presentation.

---

## SIGNIFICANT PUBLICATIONS

Carneiro C., Gori V., Desthieux G., Balocco C., Golay F., Morello E., 2014, "Urban morphology and energy consumption: simplified tools for the estimation of energy needs and solar income at the urban and district level", in Pinto N.N., Tenedório J.A., Antunes A.P., Cladera J.R. (eds.), *Technologies in Urban and Spatial Planning: Virtual Cities and Territories*, IGI, Lisbon, pp. 173-195.

Morello E., Piga B. E. A. (eds.), 2013, *Envisioning Architecture: Design, Evaluation, Communication - Proceedings of the 11<sup>th</sup> conference of the European Architectural Envisioning Association*, Edizioni Nuova Cultura, Roma.

Morello E., Ratti C., (2012), "From evaluation to design of the urban form through the assessment of environmental indicators", in Haas T. (editor), *Sustainable Urbanism and Beyond*, Rizzoli International, New York, pp. 117-119.

Carneiro C., Morello E., Voegtle T., Golay F., (2010), "Digital urban morphometrics: Automatic extraction and assessment of morphological properties of buildings", in *Transactions in GIS*, 14:4, pp. 497-531.

Carneiro C., Morello E., Desthieux G., (2009), "Assessment of solar irradiance on the urban fabric for the production of renewable energy using LIDAR data and image processing techniques", in Sester M., Bernard L., Paelke V. (eds.), *Advances in GIScience*, Lecture Notes in Geoinformation and Cartography, Springer.

Morello E., (2009), "Progettazione ambientale della forma urbana", in Bertoldini M., Campioli A. (eds.), *Cultura tecnologica e ambiente*, UTET Città Studi Edizioni, Torino.

Morello E., Biderman A., Rojas F.M., Ratti C., (2009), "Monographic Insert: SENSEable City – MIT Laboratory", in Fusero P., *E-City: Digital networks and cities of the future*, Actar-D List, Barcelona, pp. 128-157.

Morello E., Ratti C., (2009), "A Digital Image of the City: 3-D isovists in Lynch's Urban Analysis", *Environment and Planning B: Planning and Design*, 36, 837-853.

---

Morello E., Ratti C., (2009), SunScapes: 'solar envelopes' and the analysis of urban DEMs. *Computers, Environment and Urban Systems*, 33, 26-34.

Carneiro C., Morello E., Ratti C., Golay F., (2008), "Solar radiation over the urban texture: LIDAR data and image processing techniques for environmental analysis at city scale", in Lee J., Zlatanova S. (eds.), *3D Geo-information Sciences*, Lecture Notes in Geoinformation and Cartography, Springer.

Morello E., Ratti C., (2007), "Raster Cities: image processing techniques for environmental urban analysis", in Thwaites K., Porta S., Romice O. (eds.), *Urban Sustainability through Environmental Design: approaches to time, people and place responsive urban spaces*, Spon Press, London, UK.

---

## **LEADERSHIP ACTIVITIES**

(2014, since) co-chair of the Working Group 2 on 'Campus wide planning and target setting' of the International Sustainable Campus Network (ISCN).

(2013, since) Member of the Editorial Board of the International Journal of Sensory Environment, Architecture and Urban Space (online journal of the Ambiances network).

(2012, since) Organization with B. Piga of the international conference "EAEA11 2013. Envisioning Architecture: Design, Evaluation, Communication", September 25-28 2013, at POLIMI.

(2011, since) Member of the board of the POLIMI and UNIMI project "Città Studi Campus Sostenibile". Responsible for the following main tasks:

- Reference person for the international relationships with the International Sustainable Campus Network (ISCN). Main author of the first POLIMI ISCN reports in 2012 and 2011. Participated to the annual symposia in 2011 and 2012.
- Coordinator of the thematic "Table Environment", which promotes environmental activities and projects on campus, and involves about 70 participants (professors, researchers and students).
- Organized events and exhibitions of the project (at "MADE Expo" in 2011 and "Mostra Tesi per un Campus Sostenibile" at POLIMI in 2012 and 2013).

(2011) Organization with S. Pareglio, of the seminar "Città e cambiamento climatico: l'azione locale", POLIMI, Milano, Italy.

(2011, since) Member of the Scientific Committee of the European Architectural Envisioning Association.

(2010, since) Principal supervisor of 30 M.Sc. theses in Architecture and Urban Planning at POLIMI.

(2010) Organization with A. Arcidiacono, B. Piga and V. Signorelli of the seminar "Exploring Urban Change through Visual and Environmental Simulation", POLIMI, Milano, Italy.

(2010, since) Scientific coordinator of the "Laboratorio di Simulazione Urbana Fausto Curti" at DiAP, POLIMI. Responsible for the environmental simulation research, and the management of research funds.

(2009, Fall Semester – 2013) POLIMI, DiAP. Dept., Ph.D. programme in Territorial Design and Government, Tutorship for Ph.D. candidates. Ph.D. programme director Prof. Fausto Curti and prof. Rossella Salerno. Supervision of Ph.D. candidates. Helped in organizing activities, assisted candidates in research activities, paper writing, organization of seminars and assignments.

(2006) Organization with A. Meda, C. Monticelli e A. Serafino of the seminar "Verso la Qualità Ambientale in Architettura", POLIMI, Milano, Italy.

---

## **PARTICIPATION TO EXHIBITIONS**

(2009) "Trash Track" – A SENSEable City Laboratory video web installation at the Situated Technologies exhibition organized by the Architectural League of New York, USA. Participation in the project team as project leader and contribution to concept design.

(2005, October–2006, January) "mobile landscape | graz in real time" – A SENSEable City Laboratory video web installation at the M-City exhibition, Kunsthaus Graz, Austria. Participation in the project team for concept design and graphic design.

(2003, October) "Pole Europe Project 2k'2+2k'3", Faculty of Architecture and Society, POLIMI, Milano, Italy. Organization and installation of the exhibition.

(2002, July) – "Pole Europe 2k'2", FHA, Windisch, Switzerland. Exhibition of the final work.

---

---

## PROFESSIONAL EXPERIENCE

### *Consultancy in environmental urban design:*

- (2011) State of Geneva Solar Cadaster. Role: principal investigator together with LASIG EPFL and HEPIA HES-SO. Development of tools for the assessment of solar irradiation at the regional scale.
- (2010) K.A.C.A.R.E., Saudi Arabia. Invited urban design competition. Project leader: Carlo Ratti Associati, Torino and Boston. Role: team member responsible for the environmental simulation and algorithmic design for the site layout planning of the new city.
- (2007) Urban design Competition "Riqualficazione del centro storico di Castelfranco Emilia" Winning project, 1st prize. Design: C.A.I.R.E. Reggio Emilia, Italy; role: urban environmental quality consultant with Sergio Porta.

### *Independent Architectural Projects:*

- (2004-2011) residential interior design projects in Italy
- 2012, Verona, Piazza Simoni (interior design and construction).
  - 2011, Milano, via Lomellina (roof renovation and interior design)
  - 2007, Milano, Viale Romagna (interior design and construction).
  - 2006, Verona, Piazza Simoni (interior design and construction).
  - 2006, Milano, Via Orti (interior design).
  - 2004, Milano, Via S.G. sul Muro (interior design).
  - 2004, Modica RG, Clubhouse Cava d'Ispica, (interior design and construction).
- (2003) Albergo diffuso a Modica, historical preservation, planning and interior design with N. Sciveres, G. Trabacchi - role: architect.

### *Architectural Design Competitions:*

- (2004) "la casa del futuro - per una nuova qualità dell'abitare", sponsored by ANCE and by "L'industria delle costruzioni" magazine. 15 young architecture studios invited, Collaboration with studio Ghigos. Project exposed at the Urban Center, Milano.
- (2003) "Was kommt aufs Dach?", Project "AvantGarden", 4th place, with S. Bergamaschi, D. Crippa, B. Di Prete, A. Fancelli, P. Gelosa, E. Naboni (published in Garten+Landschaft n. 10 2003, Munich, Germany).

### *Collaboration with Architecture and Urban Planning Office Metrogramma (January 2003 - April 2004):*

- (2004) Architectural Competition "La Nuova Sede della Regione Lombardia", 3rd prize, Metrogramma with FOA, L. Molinari, A. Scandurra.
- (2003) Architectural Competition "PescarAmare", Project: Archipelago Pescara, winner 1st prize, (published in Area n. 69, 2003).
- (2003) Casa di Cura Solatrix II RSA, Rovereto (TN), Italy - role: architect in the design team.
- (2003) Gruber Center, Bolzano (BZ), Italy - role: architect in the design team.
- (2003) collaboration at the research project "Superinfrastrutture: insediamenti produttivi ad alta densità".

---

## OTHER SKILLS

- (2003, since) EU licenced architect; Registration: Member n. 987 of "Ordine degli Architetti della Provincia di Bolzano".
- Languages: Italian (native), English (very good), German (very good), Spanish (basic).

---

## REFERENCES

Prof. Carlo Ratti  
Director, SENSEable City Lab  
M.I.T.  
77 Massachusetts Avenue  
Cambridge, MA, 02139 USA  
ratti@mit.edu

Prof. Sergio Porta  
Urban Design Studies Unit  
University of Strathclyde  
131 Rottenrow  
Glasgow G4 0NG  
sergio.porta@strath.ac.uk

Prof. Alessandro Balducci  
Vice Rector, Professor, DiAP Dept.  
Politecnico di Milano  
Piazza Leonardo da Vinci, 32  
Milano, MI, 20133 ITA  
sandro.balducci@polimi.it

---