

Eugenio Morello *updated October 2019*

Business Address

Politecnico di Milano | DASTU
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An architect by education, Eugenio Morello is Associate Professor in Urban Design at Polimi and coordinator and research scientist at the Laboratorio di Simulazione Urbana Fausto Curti, Department of Architecture and Urban Studies (Dastu). Since 2017 he is the Rector's Delegate for environmental sustainability and responsible for institutional projects towards a sustainable campus. He is the department principal investigator of the European H2020 projects 'Clever Cities' and 'Sharing Cities' and is responsible for the co-design activities of novel urban services and the energy retrofitting of private multi-property buildings for the Milan partnership (since 2016). For the Department he is also leading the activities for the research projects 'Climate change and territory: guidelines and operational proposals for the Metropolitan City of Milan' and 'Towards climate-proof landscapes for living and working', both funded by Fondazione Cariplo (2017/18; 2018/19) and aiming at initiating a path towards the construction of a resilient metropolitan area. Since 2015 he is member of the board of the Ph.D. Programme named 'Urban Planning, Design and Policy' at Polimi. He is instructor of a design studio named 'Energy and Urban Planning' offered at the MSc programme in Urban Planning and Policy Design, where he explores energy transition and urban resilience solutions at the urban level. He is also teacher of the course 'Environmental Design Principles', at the Bachelor programme in Urban Planning, with a specific focus on urban ecology and sustainable development applied to urban design.

His research interest is situated in the interplay between urban design and environmental quality, climate design, resilience and adaptation to climate change. He investigates the integration of environmental aspects and energy transition solutions for the design of sustainable neighborhoods towards the closing of energy and environmental cycles. In particular, he focuses on the assessment of renewable energy sources (mainly solar and biomass) generation and its spatial implications at the local and regional scale. More recently, his research work has opened new insights on the topic of collaborative consumption and sharing society and how these new paradigms can inform urban planning, urban design and co-design approaches.

He was previously a Roberto Rocca postdoctoral fellow at the Human Space Lab, Polimi (2009) and at the SENSEable City Lab, MIT (2008). Earlier, he was adjunct professor at Polimi since (2006-2009), where he taught sustainable urban design. He holds a Ph.D. in environmental design and building technology from Polimi (2006).

EXPERIENCE

Politecnico di Milano

Milano, IT

(March 2018, since) Associate Professor at the Dipartimento di Architettura e Studi Urbani, Laboratorio di Simulazione Urbana Fausto Curti. Research focuses on sustainable urban planning.

Politecnico di Milano

Milano, IT

(March 2015 – February 2018) Assistant Professor (senior position) at the Dipartimento di Architettura e Studi Urbani, Laboratorio di Simulazione Urbana Fausto Curti. Research focuses on future energy scenarios and the city.

Politecnico di Milano

Milano, IT

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

Politecnico di Milano

Milano, IT

(May 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 – January 2009) 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.

EDUCATION

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).

RESEARCH EXPERIENCE

Politecnico di Milano, DASTU, Lab. di Simulazione Urbana

Milano, IT

Progetto Cariplo Territorio 2018 named '**Verso paesaggi dell'abitare e del lavorare a prova di clima: Adattamento ai cambiamenti climatici e miglioramento del comfort degli spazi pubblici e delle aree produttive nel territorio peri-urbano milanese**'. Role: coordinator of the DASTU team; contributed to the preparation of the project proposal in 2018. (January 2019 – December 2019). Budget managed: 55.450 €; Total Budget: 135.000 €.

Politecnico di Milano, DASTU, Lab. di Simulazione Urbana

Milano, IT

EU Horizon 2020 Research project named '**Clever Cities: Co-designing Locally tailored Ecological solutions for Value added, socially inclusive Regeneration in Cities**', GA N. 776604 - CLEVER. Role: coordinator of the DASTU team, third party of Fondazione Politecnico; research for co-design methods and application in Milan; contributed to the preparation of the project proposal in 2017. (June 2018 – May 2023). Budget managed: 78.219 €; Total Budget: 14,89 M€.

Politecnico di Milano, DASTU, Lab. di Simulazione Urbana

Milano, IT

Polisocial project named '**EnerPop: Energia Popolare**': project manager and coordinator of the DASTU team; contributed to the preparation of the project proposal in 2017. (March 2018 – March 2020). Budget managed: 35.000 €; Total Budget: 80.000 €.

Politecnico di Milano, DASTU, Lab. di Simulazione Urbana

Milano, IT

Progetto Cariplo Territorio 2017 named '**Cambiamenti climatici e territorio: linee guida e proposte operative della Città Metropolitana di Milano**': coordinator of the DASTU team; contributed to the preparation of the project proposal in 2017. (September 2017 – August 2018). Budget managed: 40.000 €; Total Budget: 115.000 €.

Politecnico di Milano, DASTU, Lab. di Simulazione Urbana

Milano, IT

EU Horizon 2020 Research project named '**Sharing Cities**', GA N. 691895 - SHAR-LLM. Role: coordinator of the DASTU team on co-design of novel urban services towards the Sharing City in Milan; contributed to the preparation of the project proposal in 2015. (January 2016 – December 2020). Budget managed: 140.895 €; Total Budget: 28 M€

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).

AWARDS

- (2019) CISBAT Conference Gold Paper Award, Lausanne, CH.
- (2017) Polisocial Award, Politecnico di Milano – project proposal "EnerPop", project manager (P.I. Prof. Lorenzo Pagliano), Milan, IT.
- (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, PT.
- (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, Cambridge MA, US.
- (2003) Winner of the Politecnico di Milano 3 years scholarship as Ph.D. candidate, Milan, IT.

TEACHING EXPERIENCE

Politecnico di Milano, METID
Higher Education for the Sustainable Development Goals (HE4SDGs). Polimi Open Knowledge MOOC (Spring 2019). Main Scientific Coordinator of the course. Organized the content with Prof. Paletta UNIBO with the support of METID Polimi. Recorded lectures and supervised all the content.

Politecnico di Milano, School of Architecture Urban Planning Construction Engineering
Energy and Urban Planning Studio. MSc in Urban Planning and Policy Design (Fall Semesters 2018 - 2011). Main instructor together with Prof. Stefano Pareglio. Ex cathedra lectures and supervision of students with design reviews. Prepared and supervised assignments and conducted exams.

Politecnico di Milano, School of Architecture Urban Planning Construction Engineering
Elementi di Progettazione dell'Ambiente. Bachelor in Urban Planning (Spring Semesters 2019, 2018, 2017).

Main instructor together with Prof. Renato Casagrandi. Ex cathedra lectures and supervision of students with exercises. Prepared and supervised assignments and conducted exams.

Politecnico di Milano, Ph.D. School, Dastu, Urban Planning, Design and Policies Ph.D. Programme

Open Spaces Design. Ph.D. seminal lecture series (Winter Semester 2017)

Main instructor together with Prof. Andrea Arcidiacono. Organized and coordinated the seminars with external guests. Prepared and supervised assignments for participants.

Politecnico di Milano, School of Architecture Urban Planning Construction Engineering

Interpretazioni per il Progetto del Paesaggio e dell'Ambiente Course. Bachelor in Urban Planning (Spring Semester 2016). Main instructor together with Prof. Paolo Bozzuto. Ex cathedra lectures and supervision of students with exercises. Prepared and supervised assignments and conducted exams.

Politecnico di Milano, Faculty of Architecture and Society

Eco-Urban Design Studio. MSc in Architecture (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. Prepared and supervised assignments and conducted exams.

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

Tutorship for Ph.D. candidates (Fall Semester 2010 – 2013). Ph.D. programme director Prof. Rossella Salerno. Supervision of Ph.D. candidates. Helped in organizing activities.

Politecnico di Milano, Faculty of Architecture and Society

Eco-Urban Design Studio. MSc in Architecture (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. MSc in Urban Design (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

Eco-Urban Design Studio. MSc in Architecture (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

Urban Design Studio. Bachelor in Architecture (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.

RESEARCH PRESENTATIONS

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

(2019, September) "CISBAT 2019: Climate Resilient Cities - Energy Efficiency & Renewables in the Digital Era", Lausanne, CH | full paper and oral presentation, poster and poster session presentation.

(2019, May) "ECCA 2019: European Conference on Climate Adaptation", Lisbon, PT | poster presentation.

(2019, July) "AESOP 2019", Venice, IT | oral presentation.

(2017, September) "EAEA 2017: Envisioning Architecture: Space, Time, Meaning", Glasgow, UK | 1 full paper, oral presentations.

(2017, June) "ECCA 2017: European Conference on Climate Adaptation", Glasgow, UK | oral presentation.

(2015, September) “EAEA 2015: Envisioning Architecture”, Lodz, Poland | 2 full papers, oral presentations.
 (2015, September) “CISBAT 2015: Future Buildings and Districts - Sustainability from Nano to Urban Scale”, Lausanne, CH | full paper, oral presentation.
 (2013, September) “EAEA 2013: Envisioning Architecture”, Milan, IT | full paper, oral presentation.
 (2012, July) “AESOP 2012”, Ankara, TR | extended abstract, oral presentation.
 (2011, September) “eCAADe 2011: Respecting Fragile Places”, Ljubljana, SI | full paper, oral presentation.
 (2011, September) “EAEA 2011: Envisioning Architecture”, Delft, NL | full paper, oral presentation.
 (2011, July) “PLEA 2011: The 27th Conference on Passive and Low Energy Architecture”, Louvain-la-Neuve, BE | full paper, oral presentation.
 (2010, September) “eCAADe 2010 Future Cities”, Zurich, CH | full paper, oral presentation.
 (2010, May) “AGILE 2010”, Guimarães, PT | short paper, poster session, participation by Desthieux G.
 (2009, September) “CISBAT 2009: Renewables in a Changing Climate: From Nano to Urban Scale”, Lausanne, CH | short paper, poster session.
 (2009, June) “PLEA 2009: The 26th Conference on Passive and Low Energy Architecture”, Quebec City, CA | full paper, oral presentation by Gori V.
 (2009, June) “AGILE 2009”, Hannover, DE | full paper, oral presentation by Desthieux G.
 (2008, November) “3D Geo-Info Conference 2008”, Seoul, KR | full paper and oral presentation.
 (2007, July) “II ICA Workshop on Geospatial Analysis and Modeling: Spatial Structure and Dynamics of Urban Environments”, Athens, GA, US | oral presentation.
 (2006, February) “Systemic approach and microscale urban complexity”, POLIMI, Milano, IT | 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.

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

(2019, February) “Presentation of Labsimurb research lines”. University of Biskra, Biskra, Algeria | invited lecture.
 (2018, November) “Sharing Cities Shaping Cities”. University of Zagreb, Zagreb, Croatia | invited lecture within a PhD seminar.
 (2018, June) “ISCN-GULF Conference 2018: Sustainable Development: Acting with Purpose.”, KTH, Stockholm.
 (2017, October) “École thématique CNRS 2017: Visibility analysis dedicated to the understanding of urban morphology”, Saint-Paul-En-Jarez, France | Lecture.
 (2017, September) “EAEA 2017: Envisioning Architecture: Space, Time, Meaning”, Glasgow, UK | full paper, oral presentation.
 (2017, June) “ECCA 2017: European Climate Change Adaptation Conference”, Glasgow, UK | oral presentation.
 (2017, June) “ISCN-GULF Conference 2017: Climate. City. Campus.”, UBC, Vancouver | Co-chair of WG2.
 (2016, November), “International Symposium on the Creation of Sustainable Campuses 2016”, Hokkaido University, Sapporo | Key-note speech and participation to workshop.
 (2016, June) “ISCN-GULF Conference 2016: Leadership for a Sustainable Future”, Università di Siena | Co-chair of WG2.
 (2015, October) Campus Living Lab Workshop, University of Zagreb, Zagreb | oral presentation.
 (2015, September) International Summer School on Sustainable University Campuses - Politoward, Politecnico di Torino, Torino | Key-note Speech.
 (2015, August) World Cities World Class WC2 University Network Symposium, City University London, London | Teaching within the Sustainability Eco-campus club.
 (2015, June) “ISCN-GULF Conference 2015: “Expanding the Dialogue: Sustainability in a Connected World”, HKU, Hong Kong | Co-chair of WG2.
 (2014, June) “ISCN-GULF Conference 2014: “Pushing Boundaries”, MIT-Harvard, 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.

(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, 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.

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

(2018, December) “Giornata di Studio INU”, Università Federico II, Napoli | presentation of four papers.

(2018, September) “UrbanPromo Green”, IUAV, Venezia | presentation.

(2017, September) “UrbanPromo Green”, IUAV, Venezia | presentation.

(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.

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

(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

Desthieux G., Carneiro C., Camponovo R., Ineichen P., Morello E., Boulmier A., Abdennadher N., Dervev S. and Ellert C., 2018, “Solar Energy Potential Assessment on Rooftops and Facades in Large Built Environments Based on LiDAR Data, Image Processing, and Cloud Computing. Methodological Background, Application, and Validation in Geneva (Solar Cadaster)”, in *Frontiers in Built Environment*, 4:14.

Morello E., 2016, “Rethinking energies in peri-urban areas: potentiality and action criteria”, in Colucci A., Magoni M., Menoni S. (eds.), *Peri-Urban Areas and Food-Energy-Water Nexus: Sustainability and Resilience Strategies in the Age of Climate Change*, Springer International Publishing, Switzerland, pp. 131-136.

Piga B. E. A., Morello E., 2015, Environmental design studies on perception and simulation: an urban design approach, in *International Journal of Sensory Environment, Architecture and Urban Space: Special Issue on Experiential Simulation in Architecture and Urban Design*, pp. 2-21.

Morello E., Bignardi M., Rudini M.A., 2015, “The proposal for a spatial planning support system to estimate the urban energy demand and potential renewable energy scenarios”, *Proceeding of CISBAT 2015 conference*, EPFL, Lausanne, Switzerland, 9-11 September 2015, pp 603-608.

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 11th 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., 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

(2017-2019) **Rector's Delegate for Environmental Sustainability**, Polimi.

- Responsible for the redesign of the strategic vision of environmental sustainability at Polimi
- Coordinating the activities of the inter-university project "Città Studi Campus Sostenibile" with Unimi
- Supporting and promoting the Sustainable Development Goals at university: responsible person for the first SDGs-mapping survey at Polimi.
- Scientific coordinator of the Polimi Open Knowledge MOOC on Higher Education for the SDGs (2018/19).
- Responsible for the sustainability reporting of the university.

(2018, since) **Expert on REPRISE** (Register of Expert Peer-Reviewers for Italian Scientific Evaluation, MIUR)

(2016, since) **Member of the International Sustainable Campus Network (ISCN) Advisory Board**

(2015, since) **Member of the board of the Ph.D. Programme on 'Urban Planning, Design and Policy'**, Polimi.

- (2015, since) Supervisor of two PhD candidates, namely Gabriela Fernandez and Arlinda Sheqiri.
- (Winter 2017) Organization with A. Arcidiacono of the Ph.D. seminal lecture series "Open Spaces Design".

(2014, since) **Co-chair of the International Sustainable Campus Network (ISCN) Working Group 2** on 'Campus wide planning Campus wide planning and target setting'. Organized WG2 activities at the ISCN symposia in 2014, 2015, 2016, 2017.

(2014, since) Responsible person for the **Erasmus agreement with Lodz University of Technology, Poland**.

(2011, since) Responsible person for the **Erasmus agreement with University of Strathclyde, UK**.

(2011-2017) **Member of the board of the POLIMI and UNIMI project "Città Studi Campus Sostenibile"**.

Responsible for the following main tasks:

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

(2010, since) **Principal supervisor of more than 60 M.Sc. and Bachelor theses** in Architecture, Urban Planning and Engineering at Polimi.

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

Main recent organization of conferences and seminars:

(2018) Chair and Organization with G. Salvia and A. Arcidiacono of the International Research Symposium “Sharing Cities Shaping Cities”, March 5-6 2018, at Polimi.

(2017) Organization with B. Piga and the Ambiances Network of the Research Seminar and Workshop “Translation in professional terms: in quest of and the Ambiances Network modus operandi” as part of the Groupement de Recherche International (GDRI) funding programme, June 12-14, at Polimi.

(2017) Organization with B. Piga and the Ambiances Network of the “Mobiance 3” Workshop and Research Seminar, February 27 – March 3, at Polimi. 20 international students in urban planning, architecture and engineering.

(2015) Organization with B. Piga of the Research Seminar and Workshop “Quality and quantity of visual perception: recent ICT improvements for tridimensional visibility analysis”, November 23-24 2015, at Polimi.

(2014) Organization with B. Piga of the Research Seminar and Workshop “Computational Design and Research: current research at Aedas R&D”, within the 'Architectural and Urban Simulation' course at POLIMI.

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

(2013) Organization with P.L. Paolillo and C.U. Comi of the Seminar “Urban Utilities: Il trattamento del dato al servizio del luogo” at DASTU, POLIMI

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

Memberships to boards, associations and journals

(2015, since) Member of the Editorial Board of the Journal ‘Territorio’ published by Franco Angeli.

(2015) Guest editor of the International Journal of Sensory Environment, Architecture and Urban Space.

(2012, since) Labsimurb Member of International Ambiances Network.

(2010, since) Member of the Editorial board of International Journal of Sustainable Society.

(2010, since) Labsimurb member and board member of the European Architectural Envisioning Association.

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, Kunsthau 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:

(2018-2019) Grand Plan Genève. Selected team for by the Canton Genève for proposing the vision of the city in 2030. Project Leader: Stefano Boeri Architetti. Role: Climate planning consultancy.

(2018-2019) Scalo Farini and San Cristoforo urban design competition. Selected team by FS, FS Sistemi Urbani and RFI. Project Leader: Baukuh. Role: Climate planning consultancy.

(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, 1st prize, (published in Area 69).
 (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).

REFERENCES

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