# Architecture Environmental Design

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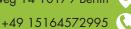
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#### ABOUT ME **VIRTUES**

Architect and researcher, ecologist, geek. Curious and restless, my professional experience has been driven by the passion for sustainable design, as an ethical principle as well as a practical inspiration. I am an expert in building performance simulation and optimization and human thermal comfort, both indoor and outdoor.

Energy and dedication are key elements of my personality. I have a strong inclination to teamwork and multidisciplinary work, good communication skills and good organizational skills, aquired partaking in and leading groups made of different professionals, in the work field and the academia. HARDWORKING

PASSIONATED

MOTIVATED

**PRODUCTIVE** 

**EFFICIENT** 

## WORK

2015	Associate of the urban planning, architecture and design office Tamandua with F.
	Schmelzer.

2012-2014 Architect and environmental consultant on sustainable urban planning for the Paris office KH Studio and F. Schmelzer.

2009 -Self-employed architect and environmental consultant.

2011-2014 Architect on sustainable renovation projects for Battisti Tucci Architetti Associati firm in Rome, Italy.

2012 Architect and interior designer for **CAOS Studio** firm in Rome, Italy.

2010 Parametric designer for the New York firm **Agency**.

2009 Architect on the Italian firm **Ungroup** in Rome, Italy.

2008 Collaborator for 3D models and render for **Itaproject** firm in Rome, Italy.

## **AWARDS**

2015	1st prize - Masterplan of the new district "Am Langen Rain", Germany. With KH
	Studio, F. Schmelzer.

3st prize - Masterplan of the Northern area of Karlsruhe, Germany (cosultancy). With KH Studio, F. Schmelzer, L. Cattoni.

1st prize - Masterplan of Columbus Quartier in Mannheim, Germany (consultancy). With KH Studio, F. Schmelzer, EEM paisage.

2014 2nd prize - Urban Factory: Fare Piazza, on the renovation of public open spaces in Rome. With F. Schmelzer.

2012 Mention of honour - Parco urbano di Piazza d'Armi, L'Aquila. With KH Studio, F. Bernetti, D. Curatola Soprana, F. Schmelzer, M. Teofili.

> 4th prize - Architetture di Servizio of Milano Expo2015. With S. Dierna, Battisti Tucci Architetti Associati, M. Andreucci, S. Cimini, R. Morleo.

Mention of honour - Parco d'Arte nel quartiere Casanova di Bolzano. With F. Bernetti, A. Marino.

2010 Mention of honour - Master Degree Thesis Award Premio di Architettura Sostenibile in memoria di R. Alibrandi. Mention of honour ex-aequo - Master Degree Thesis Award Premio 2009 Internazionale di Architettura Sostenibile Fassa Bortolo.

## **COMPUTER SKILLS**

EnergyPlus	Revit	Grasshopper	Illustrator
RayMan	AutoCAD	Vray	Indesign
Envimet	3D Studio Max	Sketchup	After Effects
Ecotect	Rhinoceros	Photoshop	Dreamweaver

## **PROFESSIONAL SKILLS**

Construction experience, from document development to on-site installation.

Strong design skills with a sustainable approach, from conceptual to detailed development.

Excellent computer technical skills, especially in performance simulation and parametric design.

Research experience in comfort analysis and performance optimization indoor and outdoor.

## LANGUAGE SKILLS

0		English	Spanish	French
	German			
DUCATION AND TOAINING				

## **EDUCATION AND TRAININ**

2013	PhD in Environmental Design at the Planning, Design, and Technology of Architecture department (PDTA) of Sapienza University, Rome, Italy.
2009	Master Degree in Architecture at of Sapienza University, Rome, Italy, with a thesis in Environmental Design, mark 110/110 with honours and thesis publication.
2005-2006	9 months Erasmus Student Mobility for Valencia Universidad Politecnica, Spain.

## RESI

EARCH	
2014	10 months "Borsa di perfezionamento" scholarship for the Urban Microclimate group of Albert Ludwigs University, Freiburg, Germany.
	Collaboration for the UHI project (Development and application of mitigation and adaptation strategies and measures for counteracting the global Urban Heat Islands phenomenon), implemented through the CENTRAL EUROPE Programme.
2012	Visiting student period at the Urban Microclimate group of Albert Ludwigs University, Freiburg, Germany.
2011	Visiting student period at the CRES Institute (Centre for Renewable Energy Sources) of Athens, Greece.
2009-2014	Collaboration with the Planning, Design, and Technology of Architecture (PDTA) of Sapienza University of Rome:

- Energy retrofit measures on the national Italian libraries
- Guidelines for historical buildings energy efficiency (Ministry of Heritage)
- Sustainable renovation of historical settlements and villages in Italy
- Sustainable renovation of public open spaces of San Giovanni district
- Redevelopment of the building school stock (Ministry of Education)

- \* Best Practices of energy efficiency and sustainable design for airports
- \* Regenerating local communities (Municipality of Rio de Janeiro)
- \* Thermally active surfaces for retrofitting, with Technische Universität München
- \* Renovation Plan of ex-informal settlements (Toponimi) in Rome (Lazio Region).

## **PUBLICATIONS**

- Calcerano, F., & Martinelli, L. (2016). Numerical optimisation through dynamic simulation of the position of trees around a stand-alone building to reduce cooling energy consumption. Energy and Buildings, 112, 234–243. http://doi.org/10.1016/j.enbuild.2015.12.023
- Martinelli, L., Lin, T.-P., & Matzarakis, A. (2015). Assessment of the influence of daily shadings pattern on human thermal comfort and attendance in Rome during summer period. Building and Environment, 92, 30–38. http://doi.org/10.1016/j.buildenv.2015.04.013
- Martinelli, L., Battisti, A., & Matzarakis, A. (2015). Multicriteria analysis model for urban open space renovation: An application for Rome. Sustainable Cities and Society, 14, e10–e20. http://doi.org/10.1016/j.scs.2014.07.002
- Martinelli, L. (2013). La riqualificazione degli spazi aperti e intermedi della periferia. In A. Battisti (Ed.), Rinnovare le periferie: riqualificazione bioclimatica e ambientale delle aree urbane periferiche. Firenze: Alinea.
- Battisti, A., & Martinelli, L. (2012). Bioclimatic approach in urban open space retrofit intervention: the case of Prati area in Rome. In D. J., Francese Passaro, P. D. Joanna, D. Francese, & P. Passaro (Eds.), Sustainable Mediterranean Construction. Sustainable Environment in the Mediterranean Region: from Housing to Urban and Land Scale Construction. Milano: FrancoAngeli.
- Martinelli, L. (2012a). Analisi dei casi studio. In A. Battisti, Green Airport. Buone pratiche per l'efficienza energetica delle infrastrutture aeroportuali/Best practices for the energy and ecological efficiency of airport infrastructure. Firenze: Alinea.
- Martinelli, L. (2012b). Small Buildings per la cultura. In A. Battisti, Technologies for Small Buildings. Firenze: Alinea.
- Martinelli, L., & Altamura, P. (2011). Innovazione nell'uso delle Tecnologie per l'integrazione energetica nella permanenza dell'identità dell'abitare mediterraneo. In M. L. Germanà (Ed.), Permanenze e innovazioni nell'architettura del Mediterraneo. Firenze: Firenze University Press.
- Martinelli, L. (2010). Innovazione degli spazi per la cultura: nuovi requisiti di sostenibilità per biblioteche. In M. Balzani & N. Marzot, Architetture per un territorio sostenibile: città e paesaggio tra innovazione tecnologica e tradizione. Milano: Skira.

## **SCIENTIFIC EVENTS PARTICIPATION**

- 23-06-2014 Local meeting of the UHI project at the Charles University, Prague, Czech Republic, with the presentation Assessment of human-biometeorological conditions in urban areas embedded in complex topographies. The example of Stuttgart.
- 3-4-2014 Local meeting of the UHI project at the Meteorological Institute of Albert Ludwigs University, Freiburg, Germany, with the presentation *Human thermal comfort from the point of view of architecture*.
- 12-11-2013 International Conference *Cultivating Rome*, organized by Sapienza University of Rome, with the presentation *Farm in Rome*.
- 6-6-2013 Conference Natura dello spazio pubblico e rivitalizzazione urbana, organized by MACRO (Museo d'Arte Contemporanea Roma), CEDRAP (Centro di Ricerca e Documentazione sull'Arte Pubblica) with the presentation L'esperienza degli orti urbani sociali: Fermenti di Terra.

- 19-9-2014 Tirana Design Week 2013 with the lecture *Improving comfort outdoor. Bioclimatic approach in public open space renovation*.
- 15-5-2012 International Conference and Seminar *Green school* of Sapienza University of Rome and TUM Technische Universität München, with the presentation *Urban open space renovation*. A participatory process.

## **SCIENTIFIC EVENTS ORGANIZATION**

- 20/29-19-2014 Organization and tutoring during of the International workshop SKIN Transparent and Translucent building skin as a Multilayered & Multipurpose Filtering System, as part of the Tirana Architecture Week 2014.
- 16/27-9-2013 Organization and tutoring during of the International workshop *Polis Grows Green*, as part of the Tirana Architecture Week 2013.
- 2/5-2012 Organization and tutoring during of the workshop *The participatory design of public open spaces*, with the students of junior high school Carlo Urbani in Rome, Italy, as part of the research *Sustainable renovation of public open spaces of San Giovanni district in Rome*.
- 20/24-6-011 Organization and tutoring of International Conference and Seminar *Prati Grows Up* of Sapienza University of Rome.
- 11/16-1-2010 Organization and tutoring of International Conference and Seminar Green Up. Urban Vertical Farm, of Sapienza University of Rome

### **TEACHING**

- Assistant supervisor in 3 postgraduate Master Degree thesis in Architecture at Sapienza University, Rome, Italy, on the sustainable renovation of Historical Buildings and public open spaces in Rome.
- 2010-2012 Assistant Professor of Environmental Design (Prof. Arch. A. Battisti) at the Master Degree in Architecture at Sapienza University, Rome, Italy.
- Assistant Professor of Technology of Architecture (Prof. Arch. A. Battisti) at the Master Degree in Architecture at Sapienza University, Rome, Italy.