

## PERSONAL INFORMATION

## Maria Elena Menconi



📍 Borgo XX giugno, 74, 06100 Perugia (Italy)

☎ (+39)3893473515

✉ mariaelena.menconi@unipg.it

🔗 <https://www.unipg.it/personale/mariaelena.menconi>

Date of birth 21/01/1975 | Nationality Italian

## Children:

Alice Grohmann born on 23.03.2005

Caterina Grohmann born on 20.05.2007

Tobia Grohmann born on 25.04.2011

## POSITION

Academic researcher - "Landscape and Rural Buildings" Research Unit of the "Department of Agricultural, Food and Environmental Sciences" of the University of Perugia

## EDUCATION AND TRAINING

2000. Degree in: **Engineering for the Environment and the Territory** curriculum "Landscape Planning and Management" University of Perugia on 07.11.2000, with a thesis entitled "Urban regeneration and complex programs. Critical analysis of the Umbrian cases and development of a design proposal".

2001. Qualified to the **profession of engineer** in January 2001 (European Qualified Engineers - access to the profession in Italy)

2004. **Ph.D. in: "Sustainable Rural Development"** XXI cycle, at the Faculty of Agriculture of the University of Perugia, on February 12, 2004, with a final dissertation entitled "Planning and design of a greenways network for sustainable development of the rural area of the Upper Umbrian Tiber Valley."

2005. Framed into the role of **Academic Researcher** - Area of interest (SDS: Scientific Disciplinary Sector, SSD Settore Scientifico Disciplinare) **SDS AGR / 10** "Rural Buildings and Rural Landscape" since January 2005

2019. **National Scientific Qualification** SDS AGR / 10 "Rural Buildings and Rural Landscape" **2nd level**

2020. **National Scientific Qualification** SDS AGR / 10 "Rural Buildings and Rural Landscape" **1st level**

## RESEARCH ACTIVITY

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**Research Interests** The research interests of Dr. Maria Elena Menconi have covered many areas related to her scientific disciplinary sector AGR / 10.

Her current interests of research are:

### **LANDSCAPE ANALYSIS AND PLANNING**

- Development of innovative governance systems to valorise areas characterized by traditional resources and high landscape values
- Evaluation and enhancement of the Ecosystem Services provided by the Urban Green Network

### **PARTICIPATORY PROCESSES FOR LANDSCAPE PLANNING, DESIGN, AND MANAGEMENT**

- Direct involvement of European farmers in sustainable rural development programs
- Local urban community's involvement for urban green system renewal
- Low and high tech tools for child-friendly open spaces
- Face-to-face and online approach for the inclusive participation of the local community
- River and landscape contracts
- Community Gardens and Urban Agriculture

### **SUSTAINABILITY OF RURAL BUILDINGS**

- Nature-based solutions to enhance the sustainability of rural buildings
- Energy and food sovereignty

**Publications** Maria Elena Menconi has **more than 80 publications** (journal papers, journal abstracts, books, book chapters, and proceedings of conferences).

**Institutional database of her publications:** [https://research.unipg.it/simple-search?query=Menconi+Maria+Elena&location=&sort\\_by=score&order=desc&rpp=10&etal=0&start=0](https://research.unipg.it/simple-search?query=Menconi+Maria+Elena&location=&sort_by=score&order=desc&rpp=10&etal=0&start=0)

ORCID ID: <http://orcid.org/0000-0002-5573-9107>

Scopus Author ID: 36192236400

Web of Science ResearcherID: AAA-6368-2020

MENDELEY profile: <http://www.mendeley.com/profiles/mariaelena-menconi/?viewAsOther=true>

Scopus profile:

<https://www.scopus.com/authid/detail.uri?authorId=36192236400&eid=2-s2.0-77955081562>

RESEARCHGATE profile: [https://www.researchgate.net/profile/Maria\\_Menconi](https://www.researchgate.net/profile/Maria_Menconi)

**Citations** Impact of the publications, deriving from the main databases (Accessed 20th June 2020) :

- database **Google Scholar** citations 169 h index 7 i10-index 7  
[https://scholar.google.it/citations?hl=it&user=RIM7B1UAAA&view\\_op=list\\_works&sort=pubdate](https://scholar.google.it/citations?hl=it&user=RIM7B1UAAA&view_op=list_works&sort=pubdate)
- database **Scopus** citations 114 h index 7  
<https://www.scopus.com/authid/detail.uri?authorId=36192236400>
- database **Web of Science** citations 92 h index 6  
Web of Science Researcher ID: AAA-6368-2020

- Scientific review activity** reviewer for the following journals:
- Journal of Environmental Management
  - Sustainable Cities and Society
  - Ecological Indicators
  - Applied Geography
  - Population and Environment
  - Sustainability
  - Journal of Agricultural Engineering
  - Energy and Buildings
  - Renewable Energy

- Projects since 2010** Years 2018-2020
- **Implementation of a civic medium for the renewal of a historical garden of a city of central Italy (Perugia).** Interdepartmental working group coordinated by the Municipality of Perugia, Maria Elena Menconi was responsible for the development of the participatory method  
The following paper reports the main results: Menconi M.E., Tasso S., Santinelli M., Grohmann D., 2020. A card game to renew urban parks: Face-to-face and online approach for the inclusive involvement of local community. *Evaluation and Program Planning* 79, 101741, doi.org/10.1016/j.evalprogplan.2019.101741

- Years 2018-2019
- **Nature-based solutions for the improvement of the energy performance of rural buildings.** International working group coordinated by the University of Perugia. Maria Elena Menconi was responsible for the energetic performance simulations (software EnergyPlus) of the responses of vernacular rural buildings.  
The following papers report the main results:  
Grohmann, D., Petrucci, R., Torre, L., Micheli, M., Menconi, M. E., 2019. Street trees' management perspectives: Reuse of Tilia sp.'s pruning waste for insulation purposes. *Urban Forestry & Urban Greening* 38, 177-182, doi:10.1016/j.ufug.2018.12.009  
Kadziński, M., Rocchi, L., Miebs, G., Grohmann, D., Menconi, M.E., Paolotti, L., 2018. Multiple Criteria Assessment of Insulating Materials with a Group Decision Framework Incorporating Outranking Preference Model and Characteristic Class Profiles. *Group Decision And Negotiation* 27, 33-59, doi:10.1007/s10726-017-9549-3

Rocchi, L., Kadziński, M., Menconi, M. E., Grohmann, D., Miebs, G., Paolotti, L., Boggia, A., 2018. Sustainability evaluation of retrofitting solutions for rural buildings through life cycle approach and multi-criteria analysis. *Energy And Buildings* 173, 281-290, doi: 10.1016/j.enbuild.2018.05.032

## Year 2018

- **Agronomic-hydraulic-pedological report as part of the technical-economic feasibility study for the modernization and adaptation of the rain distribution system in the irrigation area on the right of the Nera river.** Scientific coordinator prof. Francesca Todisco, Maria Elena Menconi was the member responsible for the GIS system. Financed by the Tevere Nera Reclamation Consortium. The GIS system is for the internal use of the Consortium. There is not a public link.
- **Model of development and monitoring of urban green areas** Scientific Coordinator dr. David Grohmann Maria Elena Menconi was the member responsible for the Implementation of a civic medium for the participative design process for the renewal of a green area in the Municipality of Lumezzane (Brescia). Financed by the Municipality of Lumezzane. The civic medium was hosted at: <http://verdeurbano.comune.lumezzane.bs.it/>

## Years 2016-2017

- **Role of Local Action Groups in Improving the Sense of Belonging of Local Communities.** Interdepartmental working group between the University of Perugia and the University of Viterbo coordinated by GAL "In Teverina" (Lazio) The following papers report the main results:  
Menconi M.E., Artemi ,S., Gobattoni Federica, Grohmann D., 2016. Evaluation of the sense of belonging of rural communities in central Italy. In: EURORURAL 2016. p. 27-28, Brno: Mendel University in Brno, ISBN: 978-80-7509-424-7, Brno, 29 August- 2 September 2016  
Menconi, M.E., Artemi, S., Borghi, P., Grohmann, D., 2018. Role of Local Action Groups in Improving the Sense of Belonging of Local Communities with Their Territories. *Sustainability* 10, 1-19, doi: 10.3390/su10124681 dal 01-04-2016 al 30-11-2017

## Years 2015-2017

- **Optimization of energy efficiency in traditional rural buildings: development of a thermal simulation model integrated into an LCA approach for the evaluation of construction performance of innovative plant-based insulation materials-** Scientific Coordinator dr. Maria Elena Menconi. Financed by the University Fund for Basic Research 2015. The following paper reports the main results: Menconi M.E., Grohmann D., Rocchi L., Paolotti L (2017). *Valorization of key buildings of the rural traditional landscape in central Italy: the case of the "Casa Colonica"*. In: "Biosystems Engineering addressing the human challenges of the 21st century" Proceedings vol. I, pp. 19-23, University of Bari, ISBN: 978-88-6629-020-9, Bari, 5-8 July 2017

## Years 2014-2017

- **Genetic algorithms and dynamic energy simulation to optimize passive solutions for energy saving in rural buildings.** International working group coordinated by the Department of the Built Environment, Eindhoven University of Technology, Eindhoven, Netherlands. Maria Elena Menconi was responsible for the analysis of the materials characterizing the rural buildings.  
The following paper reports the main results: Menconi, M.E., Chiappini, M., Hensen, J.L.M., Grohmann, D., 2017. Thermal comfort optimization of vernacular rural buildings: passive solutions to retrofit a typical farmhouse in central Italy. *Journal Of Agricultural Engineering* 48, 127-136, doi: 10.4081/jae.2017.668

## Years 2014-2016

- **Web gis of the Regional Observatory for Participatory Policies relating to Italian Local Rules (Municipal level) on participation** - Scientific Coordinator dr. Maria Elena Menconi. Financed by the Legislative Assembly of the Umbria Region  
The web gis is accessible at: <http://www.oppumbria.it/cartina/>  
The following paper reports the main results: Menconi M.E., 2016. *I regolamenti in materia di ambiente e urbanistica*. In (Valastro A.) "Le regole locali della democrazia partecipativa. tendenze e prospettive dei regolamenti comunali" pp.165-184. - ISBN:9788824324106, Jovene:Napoli
- **Energy Sovereignty in rural marginal areas.** Scientific Coordinator dr. Maria Elena Menconi. Financed by "La Fabbrica del Sole" (<http://www.lafabbricadelsole.it/>)  
The tool for autonomy is accessible at: <https://www.offgridbox.com/>  
The following paper reports the main results: Menconi, M.E., Dell'Anna, S., Scarlato, A., Grohmann, D. , 2016. Energy sovereignty in Italian inner areas: Off-grid renewable solutions for isolated systems and rural buildings. *Renewable Energy* 93, 14-26, doi: 10.1016/j.renene.2016.02.034

## Years 2014-2015

- **Participatory design of the playground of the school "XX Giugno" Perugia** - Scientific Coordinator dr. David Grohmann; Maria Elena Menconi was the responsible of the participatory process. Memorandum of Understanding between the Municipality of Perugia, Perugia Comprehensive Institute 3 and Department of Agricultural, Food and Environmental Sciences of 15/12/2014)  
The following paper reports the main results: Menconi M. E., Grohmann D., 2018. Participatory retrofitting of school playgrounds: Collaboration between children and university students to develop a vision. *Thinking Skills And Creativity* 29, 71-86, doi: 10.1016/j.tsc.2018.06.006

## Year 2011

- **Innovative solutions for energy efficiency in livestock production buildings.** Scientific Coordinator Maria Elena Menconi- Ministry of Universities and Research - Great Strategic Program Area 12) Energy-saving and distributed micro-

generation - Fund for youth support - Financial year 2011.

Years 2006-2010

- **Integrated Model for the evolution of natural and agricultural ecosystems in relation to climate changes in the Mediterranean area.** Maria Elena Menconi was the Scientific Coordinator of the research unit 2 (Dutagr). Financed by MIUR – FISIR project -Special Supplementary Research Fund - MICENA three-year program 2006-2009

Conferences since 2010

Year 2020

- **Resilient and sustainable rural systems: from the farm to the territory.** Meeting of the 2nd Section of the Italian Society of Agricultural Engineering "Rural buildings, plants and territory", 20-21 February 2020, Udine.  
Maria Elena Menconi Coordinated the thematic section "From the protection and enhancement of the open spaces to green infrastructures and nature-based solutions as strategies for sustainable development".

Year 2019

- **Bio-systems Engineering for sustainable agriculture, forestry and food production.** International Mid-Term Conference 2019 the Italian Society of Agricultural Engineering (AIIA), 12-13 September 2019, Matera.  
Title of the presented paper: *Urban agriculture, cui prodest? Seattle's Picardo farm as seen by its gardeners*

Year 2018

- **Landscapes of Conflicts.** European Council of Landscape Architecture Schools (ECLAS) Conference, 9-12 September 2018, Ghent  
Title of the presented paper: *The Father Of Seattle's Community Gardens Turns 45: Lessons Learned At Picardo Farm P-Patch*
- **Healthy landscapes: green, regeneration, safety** UNISCAPE International Conference, 6-8 June 2018, Bologna.  
Titles of the presented papers:  
*A Structured listening method to retrofit a urban park evaluating the urban green system*  
*Community gardens as healing tools for patients with eating disorders*
- **Geographic Information Systems Conference and Exhibition 2018** 9-14 September 2018, Perugia  
Title of the presented paper: *A GIS-multicriteria based model for identifying the optimal location of road infrastructures*

Year 2017

- **Green Infrastructures: Nature based solutions for sustainable and resilient cities.** CNR-IBAF International Conference 4-7 April 2017, Orvieto

Title of the presented paper: *Small-scale green infrastructures: a literary review of the future of urban green spaces design*

- **Bio-systems Engineering addressing the human challenges of the 21st century** 11th International AIIA Conference, 5-8 July 2017, Bari

Titles of the presented papers:

*Valorization of key buildings of the rural traditional landscape in central Italy: the case study of the casa colonica"*

*Valorization of Tilia sp.'s pruning waste as insulation material*

#### Year 2016

- **European Countryside and ITS perception**, EURORURAL 2016, 29 August-2 September Brno.

Title of the presented paper: *Evaluation of the sense of belonging of rural communities in central Italy*

- **Actual Tasks on Agricultural Engineering-Zagreb**, 44th International Symposium on Agricultural Engineering, 23-26 February 2016, Opatija – Croatia

Titles of the presented papers:

*Green infrastructures: tree trenches for storm water management in urban environments*

*Off-grid slaughterhouses: services and use of renewable energy in inner areas*

- **Smart Rural Buildings: Food Security, Safety and Sustainability**, International conference of the 2nd section of the Italian Association of Agricultural Engineering, within the 2016 SAIE, 21 October 2016, Bologna

Title of the presented paper: *Smart farm: energy and water solutions*

#### Year 2015

- **ICSD: International Conference On Sustainable Development**. ICSD, 5-6 June 2015, Roma

Title of the presented paper: *Energy sovereignty in rural areas: off-grid paradigm for strengthen the use of renewable energy*

- **Sustainability of well-being international forum 2015: food for sustainability and not just food**, FLORENCESWIF 2015. 4-6 June 2015, Firenze

Title of the presented paper: *Off-grid approach to support the small scale food producers in rural areas*

- **Agricultural Space as a landscape asset**, AIIA Conference, 26-27 March 2015, Catania.

Title of the presented paper (in Italian): *Analisi di aree verdi annesse ad edificio scolastico ed indicazioni per la progettazione dedicata*

- **New Frontiers of Biosystems and Agricultural Engineering for Feeding the Planet**, International Mid-Term Conference Italian Association of Agricultural Engineering, 22-23 June 2015, Napoli

Titles of the presented papers:

*off-grid renewable solutions for rural buildings in inner areas*

*Passive energy optimization of traditional rural buildings in central Italy*



## Year 2014

- **Engineering for improving resource efficiency**, International Conference of Agricultural Engineering AgEng 2014 - 6-10 July 2014, Zurich

Titles of the presented papers:

*Off-grid production and processing units: renewable energy for sustainable agriculture in marginal areas for small-scale farms*

*Design of a pig feeder for free range fattening station in rural marginal areas. In: Engineering for improving resource efficiency*

- **The European Pilgrimage Routes for promoting sustainable and quality tourism in rural areas**, International Conference - EPR 2014, 2-4 December 2015, Firenze

Titles of the presented papers:

*Landscape enhancement of the Franciscan trail in Umbria: design of the garden of peace in Valfabbrica;*

*Sustainable development of intermediate rural areas with low population density*

## Year 2013

- **From Effective to Intelligent Agriculture and Forestry**, XXXV CIOSTA Conference, 3 – 5 July 2013, Billund, Denmark

Title of the presented paper: *Optimization of thermal performances in livestock housing design solutions using Genetic Algorithms*

- **Horizons in agricultural, forestry and biosystems engineering**, X Conference of Italian Society of Agricultural Engineering "I". 8-12 September 2013, Viterbo

Titles of the presented papers:

*Implementation of a genetic algorithm for energy design optimization of livestock housing using a dynamic thermal simulator*

*Optimization of sustainable buildings envelopes for extensive sheep farming through the use of dynamic energy simulation*

## Year 2012

- **Agriculture and engineering for a healthier life**, International Conference of Agricultural Engineering CIGR-EurAgEng 2012, 8-12 July 2012, Valencia, Spain

Title of the presented paper: *Landscape development scenario analysis by Pandora model: an application in Umbria region (Italy).*

- **The enhancement of agricultural land and the control of land degradation**, X AISSA Conference, 28-29 November 2012, Palermo

Titles of the presented papers (in Italian):

*EFAFSY: un modello sostenibile di insediamento rurale autonomi in Centro Italia;*

*Il parco agricolo: strumento di pianificazione territoriale dedicato alla tutela e valorizzazione delle identità agrarie*

- **Planning Support Tools: Policy Analysis, Implementation and Evaluation**



**Proceedings of the Seventh International Conference on Informatics and Urban and Regional Planning, INPUT 2012, 10-12 May 2012, Cagliari.**

Title of the presented paper: *Statistical approach to identify suitable areas for vegetation development using remote sensing data*

Year 2011

- **International Conference Spatial Data Methods for Environmental and Ecological Processes**, European Regional Conference of The International Environmetrics Society and satellite of the 58th World Statistics Congress of the International Statistical Institute (ISI), 2nd Edition, 1-2 September 2011, Foggia

Title of the presented paper: *Statistical assessment of the plant protection level within protected areas (PA) based on remote sensing products*

Year 2010

- **AgEng2010**, International Conference on Agricultural Engineering "AgEng2010" 6-8 September 2010, Clermont Ferrand, France

Title of the presented paper: *Modular structured network for the management of livestock manure in rural areas*

**Academic Year 2020/2021**

- Responsibility of the course "Surveying, analysis and planning of the territory" (12 credits) and teaching of its module "Analysis and Planning of the Territory" (6 credits) within the Master Degree of Sustainable Rural Development ". Teaching in common to the two curricula "Sustainable Agriculture" and "Rural Development and Multi-Functionality".

- Teaching of the module "Urban Planning" (3 credits) of the course "Design and Building" (9 credits) within the Master Degree of "Sustainable Agriculture", CV "Bioeconomy"

- Teaching of the module "Landscape Analysis and Planning" (5 credits) of the course "Landscape planning and design" (10 credits) within the Master Degree of "Sustainable Agriculture", CV "Landscape"

**From Academic Year 2014/2015 to Academic Year 2019/2020**

- Responsibility of the course "Surveying, analysis and planning of the territory" (12 credits) and teaching of its module "Analysis and Planning of the Territory" (6 credits) within the Master Degree of Sustainable Rural Development ". Teaching in common to the two curricula "Sustainable Agriculture" and "Rural Development and Multi-Functionality".

**Academic Year 2013/2014**

- Teaching and responsibility of "Analysis and territorial planning" (9 credits) - Degree Course: LX009 – Sustainable Rural Development – Master Degree – Department of agriculture, Food and Environmental Sciences

- Teaching and responsibility of "Territorial planning" (9 credits) Degree Course: Ornamental Green and Landscape - Bachelor Degree – Department of agriculture, Food and Environmental Sciences

**From Academic Year 2010/2011 to Academic Year 2012/2013**

- Teaching and responsibility of "Analysis and territorial planning" (9 credits) - Degree Course: LX009 – Sustainable Rural Development – Master Degree – Department of agriculture, Food and Environmental Sciences

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**OTHER TEACHING ACTIVITIES**

Academic year 2019/2020

Member of the teaching staff of the Laboratory “Climate changes”, born inside the laboratories L.U.C.E. (Laboratori Urbani Crescono Esperienze - Urban Laboratory and growing experiences) **Teaching staff of the Urban Agenda of Umbria ERDF 2014/2020** (Axis VI – Sustainable Urban Development)

From year 2005 to present day

Maria Elena Menconi actively participates in the Final Thesis dissertation committees, by tutoring and co-tutoring numerous students of the **University of Perugia**, inside the **Departments of**

- **Agriculture, Food and Environmental Sciences**
- **Civil and Environmental Engineering,**
- **Mathematics and Computer Sciences**

Years 2006 – 2015

Member of the **Teaching Council of the Ph.D. in “Sustainable Rural Development, Territory And Environment “of the University of Perugia**

During this period:

- she has held numerous seminars for doctoral students;
- she participated as a member of the examining commissions for the award of the Ph.D.;
- she was the tutor of two Ph.D. students in the Ph.D. program in "Sustainable rural development, territory, and environment", cycle XXVIII.

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## MEMBERSHIPS AND INSTITUTIONAL ACTIVITIES

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Maria Elena Menconi is a member of:

- the **Italian Society of Agricultural Engineering**
- the **Scientific Committee of the OPP (Observatory of the Participatory Policies)** of the Center for Legal Studies and Policies of the Legislative Assembly of the Umbria Region
- the **National Table of River Contract**. Within this table she is a member of the working group no.4 "Information, promotion and dissemination of River Contracts"
- Member of the **Degree Courses Commission** where she is teaching (Department of Agricultural, Food and Environmental Sciences, University of Perugia)
- Member of the **Department Committee** (Department of Agricultural, Food and Environmental Sciences, University of Perugia)
- Member of the **Department Council** (Department of Agricultural, Food and Environmental Sciences, University of Perugia)

Dr. Maria Elena Menconi has been:

- member of the **Extraordinary Teaching Commission of the Faculty of Agriculture (University of Perugia)** for adapting the teaching Program of the Faculty to the requirements by the law 270/2004. Within the Commission mentioned above, Dr. Maria Elena Menconi acted as the referent for the SDS AGR/10 and she contributed to organizing the Master Degree Course in "Sustainable Rural Development."

- member of the **Extraordinary Research Commission of the the Faculty of Agriculture (University of Perugia)**. The commission was created to manage the internal debate, within and outside the Faculty, on how it is possible to enhance the efficiency of research in terms of quality of research products and its effectiveness in terms of dissemination and transferability of results and their use by operators of the agri-food system.

Within this she was a member of the **Working Group 3 Cooperation between research, training and operating system** with the function of proposing actions to improve interchanges and cooperation between the research world, local institutions, the world of training and the productive system also through the identification of innovative strategies on the communication of research results, both towards direct users and all citizens.

- member of the working group established by ISPRA (Higher Institute for Environmental Protection and Research) **GInESTRA Integrated and Environmentally Friendly Management of the Territory and Environmental Resources** - headquarters: ISPRA, via Curtatone 3 Rome.

Within this working group she has collaborated to the realization of tools for the optimal localization of road infrastructures, in function of a gradient of biological permeability

- member of the **ISPRA-INU focus group for the drafting of guidelines for the mitigation of the impacts deriving from linear infrastructures** according to the protection of the ecological connectivity of the territory - INU headquarters P.zza Farnese 44, Rome

-member of one of the 60 **focal points for the ISPRA monitoring network "Ecological networks in spatial planning 2012"**

- Member of the **4th National Technical Committee of River Contracts, group 'Information, communication, dissemination'**

- Member of the **Regional Technical Table of the Atlas of the objectives of the River, Lake and Landscape Contracts of the Umbria Region**

- Member of the **Technical Table of the Umbria Region - ANCI - Department of Agricultural, Food and Environmental Sciences on urban agriculture**

- Member of the **Research Commission of the Department**, as a representative of her scientific disciplinary sector