

Personal Information

Surname/First name **THRAVALOU STAVROULA**
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Address Andromaxis 147, 17672, Kallithea, Athens
46 Lord Byron Ave, Flat35, 1096, Nicosia

Education

09.2013 – 12.2021 **Ph.D. «Natural ventilation as a passive cooling strategy of vernacular buildings in historic urban centres in the Mediterranean climate»**
University of Cyprus (UCY), Department of Architecture, Nicosia (Cyprus)

01.2009 – 03.2010 **M. Sc. «Bioclimatic Architecture and Environment»**
Universidad Politécnica de Madrid (UPM), Departamento de Construcción y Tecnología Arquitectónicas (ETSAM), Madrid (Spain)

10.2001 – 10.2007 **Bachelor: Architecture Engineering**
National Technical University of Athens (NTUA), School of Architecture, Athens (Greece)

Research activity

01.02.2023 – ongoing **«Investigating the thermal properties of adobe masonry walls of vernacular dwellings » (ADOBES)**
Research assistant
University of Cyprus, Department of Architecture, Nicosia
University of Cyprus (UCY), **Internal research programs** (2021)

01.11.2020 – ongoing **«Enhancing of Heritage Awareness and Sustainability of Built Environment in Architectural and Urban Design Higher Education» (HERSUS)**
Research assistant
University of Cyprus, Department of Architecture, Nicosia
European Commission, **ERASMUS+ program**
KA 2: Strategic Partnership for Higher Education

01.04.2020 – 30.12.2022 **«Building Information Modelling for Energy Efficiency in the Public Sector» (BEEP)**
Research assistant in Modelling and Simulation of Building Energy Performance
The Cyprus Institute. Energy, Environment and Water Research Center (EEWRC), Nicosia
European Union, **ENI-CBC-MED**

01.11.2019 – 31.10.2022 **«Innovative Professional Skills for Existing Building Sector - SMART Rehabilitation 3.0» (SEPIE)**
Research assistant
University of Cyprus, Department of Architecture, Nicosia
European Commission, **ERASMUS+ program**
KA 2: Strategic Partnership for Higher Education

- 01.06.2019 – 30.02.2020 **«Towards Zero Energy Hospitals in the Balkan Region» (*ZenH Balkan*)**
Research assistant
The Cyprus Institute. Energy, Environment and Water Research Center (EEWRC), Nicosia
European Union, **INTERREG**
- 22.05.2017 – 04.06.2017 **«Contemporary Techniques of Conservation and Restoration of
Traditional Buildings and Settlements» (*EduCult*)**
Teaching professional
University of Cyprus, Department of Architecture, Nicosia (Cyprus)
Training course in Nicosia. Module: «The environmental approach of contemporary
techniques of conservation and restoration of traditional buildings»
European Commission, **ERASMUS+ program**
- 01.09.2016 – 31.10.2016 **«Energy and Environmental Design of Buildings Research Program» (*E&EDB*)**
Research assistant
University of Cyprus, Department of Architecture, Nicosia (Cyprus)
University of Cyprus (UCY), **STARTUP Research Grand of Aimilios Michael**
- 22.06.2014 – 30.06.2015 **«Implementation of sustainable design elements of vernacular
architecture in the rehabilitation of traditional buildings and in the design
of new structures» (*BioCultural*)**
Research assistant
University of Cyprus, Department of Architecture, Nicosia (Cyprus)
University of Cyprus (UCY), **Internal research programs (2012)**
- 22.10.2012 – 21.06.2014 **«Innovative Methods of Protection and Conservation of Bioclimatic
Design Elements in Traditional Buildings in the Historic Centre of
Nicosia» (*BioVernacular*)**
Research assistant
University of Cyprus, Department of Architecture, Nicosia (Cyprus)
Research Promotion Foundation (IPE - RPF) HUMANITIES- 0609(BIE)07:

Teaching experience

University teaching professional:

- 09.2022 – 12.2022 ***POL 604: Capstone Design (1st part): Energy retrofit of existing buildings***
& 09.2021 – 12.2021 ***(Design of architectural intervention, numerical simulation & Life cycle analysis)***
& 09.2020 – 12.2020 Interdepartmental Postgraduate Programme «Energy Technologies and
& 09.2019 – 12.2019 Sustainable Design» (IPP-ETSD), **University of Cyprus (UCY),** Nicosia (Cyprus)
& 09.2018 – 12.2018
- 01.2023 – 04.2023 ***POL 704: Capstone Design (2nd part): Energy retrofit of existing buildings***
& 01.2022 – 05.2022 ***(Design of architectural intervention, numerical simulation & Life cycle analysis)***
& 01.2021 – 05.2021 Interdepartmental Postgraduate Programme «Energy Technologies and
& 01.2020 – 05.2020 Sustainable Design» (IPP-ETSD), **University of Cyprus (UCY),** Nicosia (Cyprus)
& 01.2019 – 05.2019

06.2022 – 07.2022
& 06.2021 – 07.2021
& 06.2020 – 07.2020
& 06.2019 – 07.2019

POL 804: Capstone Design (3rd part): Energy retrofit of existing buildings (Design of architectural intervention, numerical simulation & Life cycle analysis)
Interdepartmental Postgraduate Programme «Energy Technologies and Sustainable Design» (IPP-ETSD), **University of Cyprus (UCY)**, Nicosia (Cyprus)

01.2023 – 04.2023
& 01.2021 – 05.2022
& 01.2018 – 05.2018

ARH 539: Specialised topics in Architecture and Technology: Adaptive and energy-efficient building envelopes
University of Cyprus (UCY), Department of Architecture, Nicosia (Cyprus)

Massive Open Online Courses (MOOC) instructor:

08.2022
‘Conservation and Environmental Sustainability in Vernacular Architecture’, offered by the Department of Architecture, of the University of Cyprus, under the framework of the Erasmus Plus programme Smart Rehabilitation 3.0.
Available online: <https://smart-rehabilitation.eu/moocs/>

Workshop & seminar tutor:

06.06 – 10.06.2022
Short-term joint staff training in: Technological innovation and adaptive reuse of historic buildings (C8)
Participating experts from: UPC - Spain, UNIPA -Italy, KAUNAS - Lithuania, UCY - Cyprus
Organisation: Erasmus Plus framework – Smart Rehabilitation 3.0 Project. University of Cyprus (UCY), Department of Architecture, Nicosia (Cyprus)

02.05 – 06.05.2022
2nd HERSUS International Workshop on Adaptive Reuse.
Participating students from: IUAV -Italy, UBFA -Serbia, AUTH - Greece, USE -Spain, UCY - Cyprus
Organisation: Erasmus Plus framework – Hersus Project. University of Cyprus (UCY), Department of Architecture, Nicosia (Cyprus)
Syllabus available online: <https://www.youtube.com/watch?v=52PHILEwEEQ>

17.03.2016
Adobe mudbrick hands-on workshop.
Organization: UNESCO Schools’ Network, in collaboration with Between the Lines ltd. Agros, (Cyprus)

09.11 –13.11.2015
ARCH 491 Catalyst: Earth Building Workshop: From the unit to the wholeness
University of Nicosia (UNIC), Department of Architecture, Nicosia (Cyprus)

Teaching Assistant:

01.09 – 12.2016
APH 311: Vernacular Architecture and Contemporary Issues
University of Cyprus (UCY), Department of Architecture, Nicosia (Cyprus)

15.01 – 30.05.2017
APH 516: Buildings in History
University of Cyprus (UCY), Department of Architecture, Nicosia (Cyprus)

02.2016 – 05.2016
APH 311 Vernacular Architecture and Contemporary Issues
University of Cyprus (UCY), Department of Architecture

Publications

Books / Book chapters

Gigliarelli, E., Calcerano, F., Martinelli, L., Artopoulos, G., Thravalou, S., & Alexandrou, K. (2022). **Methodology for the energy renovation of heritage buildings using BIM. Guidelines for the development of an Energy Efficient Heritage Building Information Model (EE-HBIM)** (E. Gigliarelli, F. Calcerano, & L. Martinelli, Eds.). Consiglio Nazionale delle Ricerche.

Thravalou, S., Alexandrou, K., & Artopoulos, G. (in print). **A simulation-based approach for defining energy retrofit strategies of built heritage, through the use of H-BIM tools.** Innovative Renewable Energy. Springer

Thravalou, S., Mouzourides, P., Michael, A., Philokyprou, M., & Neophytou, M. K.-A. (In print). **A field study on the environmental conditions of street canyons in dense, historic, urban centres in the Mediterranean. The case of Nicosia, Cyprus.** Advances in Science, Technology & Innovation. Springer

Dimoudi, A., Kantzioura, A., Toumpoulides, P., Zoras, S., Serghides, D., Dimitriou, S., Thravalou, S., Metaj, M., Mara, E., & Dorri, A. (2022). **The Energy Performance of Hospital Buildings in the South Balkan Region: The Prospects for Zero-Energy Hospitals.** In A. Sayigh (Ed.), Sustainable Energy Development and Innovation (pp. 757–763). Springer https://doi.org/10.1007/978-3-030-76221-6_83

Thravalou, S. (2021). **Natural ventilation as a passive cooling strategy of vernacular buildings in historic urban centres in the Mediterranean climate.** Ph.D. thesis. Department of Architecture, University of Cyprus. ISBN 978-9925-553-42-6

Philokyprou, M., Michael, A., Thravalou, S., & Heracleous, C. (2014). In Philokyprou M., Michael A. (Eds.), **Bioclimatic approach of vernacular architecture of Cyprus.** Nicosia: Research Program BIOVERNACULAR in Greek. Available at: www.biovernacular.ac.cy

Philokyprou, M., Michael, A., Thravalou, S., & Ioannou, I. (2013). **Evaluation of sustainable design elements in the historic centre of Nicosia, Cyprus.** In M. Correia, G. Carlos & S. Rocha (Eds.), *Vernacular heritage and earthen architecture* (pp. 631-637). London: Taylor & Francis Group.

International Scientific Journals

Serghides, D., Thravalou, S., Dimitriou, S., & Kyprianou, I. (2022). **Energy Performance of Healthcare Facilities in 3 Climatic Zones in Cyprus.** *Renewable Energy and Environmental Sustainability*, 7(16). <https://doi.org/10.1051/rees/2022004>

Thravalou, S., & Philokyprou, M. (2021). **Urban design considerations in the environmental assessment of vernacular buildings with timber projections (sachnisi): The case of Nicosia's historic center.** *Frontiers of Architectural Research*, 10(1), 176–189. <https://doi.org/10.1016/j.foar.2020.11.001>

Thravalou, S., Philokyprou, M., & Michael, A. (2018). **The impact of window control on thermal performance. Investigating adaptable interventions in vernacular Mediterranean heritage.** *International Journal of Architectural Conservation*, 24(1), 41-59. <https://doi.org/10.1080/13556207.2018.1456058>

Philokyprou, M., Michael, A., Thravalou, S., Ioannou I. (2017). **Thermal performance assessment of vernacular buildings: The seasonal use of semi-open and indoor**

spaces in Mediterranean climate. *Indoor and Built Environment*, 27(8), 1050-1068.
doi:10.1177/1420326X17699037

Michael A., Heracleous C., **Thravalou S.**, Philokyrou. M. (2017). **Lighting Performance of Vernacular Architecture in the East-Mediterranean Area: Field Study and Simulation Analysis.** *Indoor and Built Environment*, 26(4), 471-487.
doi:10.1177/1420326X15621613

Data repositories

Gigliarelli, Elena, Calcerano, Filippo, Martinelli, Letizia, **Thravalou**, Stavroula, Alexandrou, Kristis, & Artopoulos, Georgios. (2021). **Guidelines for energy efficiency HBIM development of existing buildings** (Version v1). Zenodo. Available at: <https://doi.org/10.5281/zenodo.6393028>

National Scientific Journals

Philokyrou, M., Michael, A., **Thravalou S.**, Heracleous C., **Sustainability and Architectural Design: The case of traditional architecture of the Historical Centre of Nicosia**, Annual Review of History, Society and Politics, Promitheas Research Institute, Nicosia, Volume 6, 2020, ISSN 2421-7700, in Greek.

Conferences (peer reviewed)

Thravalou, S., & Philokyrou, M. (2023, in print). **Delivering education on the sustainable aspects of heritage.** Transdisciplinary Multispectral Modelling and Cooperation for the Preservation of Cultural Heritage. 3rd International Conference TMM-CH, Athens, Greece.

Thravalou, S., Artopoulos, G., Michopoulos, A., & Alexandrou, K. (2023, in print). **Energy retrofit strategies of built heritage: Using Building Information Modelling tools for streamlined energy and economic analysis.** SBE23. Sustainable Built Environments, Thessaloniki, Greece.

Thravalou, S., Michael, A., Neophytou, M. K.-A., & Philokyrou, M. (2023, in print). **The ventilation capacity of earthen vernacular buildings with timber projections (sachnisi) in dense urban canyons – Findings from a field study in the Mediterranean.** SBE23. Sustainable Built Environments, Thessaloniki, Greece.

Thravalou, S., Alexandrou, K., & Artopoulos, G. (2022). **A simulation-based approach for defining energy retrofit strategies of built heritage, through the use of H-BIM tools.** MED GREEN FORUM 6th, Florence, Italy.

Philokyrou, M., & **Thravalou, S.** (2022). **Lessons learned from the development of massive open courses on innovative strategies for the rehabilitation of built heritage.** *ICERI2022 Proceedings*. 4095–4101. <https://doi.org/10.21125/iceri.2022.0994>

Thravalou, S., Philokyrou, M., & Michael, A. (2021). **A cross-scale field study on the role of natural ventilation in adobe urban heritage buildings.** In A. Al-Hashim, S. Al-Saadi, & H. Al-Khatri (Eds.), *Comfort At The Extremes* (pp. 302–308). College of Engineering Sultan Qaboos University.

Thravalou, S., Alexandrou, K., & Artopoulos, G. (2021). **An integrated H-BIM approach for energy retrofit of built heritage.** 4th International Conference on Energy Efficiency in Historic Buildings, Munich, Germany.

Thravalou, S., Kotsoni, N., & Philokyprou, M. (2021). **Typological and morphological analysis of sachnisi; a timber projection in vernacular urban dwellings of the Eastern Mediterranean.** Proceedings of the 5th Biennial of Biennial of Architectural and Urban Restoration, 795–804.

Deligiorgi, M., Thravalou, S., Alexandrou, K., & Artopoulos, G. (2021). **Data-driven integrated practices for the study and protection of built heritage.** Proceedings of the 5th Biennial of Urban and Architectural Heritage. BRAU05, Nicosia.

Thravalou, S. (2018). **Cultural heritage and identity in contested spatial entities. The case study of Nicosia, Cyprus.** Paper presented at the *PSUC 2018 AESOP Thematic Group for Public Spaces and Urban Cultures Series*, Nicosia, Cyprus.

Thravalou, S. (2018). **Cultural and environmental layers of the urban form: The case of the historic center of Nicosia.** Paper presented at the *4th Biennial of Urban and Architectural Heritage*, Nicosia, Cyprus. 641-651

Michael, A., Philokyprou, M., Thravalou, S., & Ioannou, I. (2016). **The role of the thermal mass of adobe walls in the thermal performance of vernacular dwellings.** Paper presented at the *XIIIth World Congress on Earthen Architectures Terra2016*, Lyon, France.

Thravalou, S., Philokyprou, M., & Michael, A. (2016). **“Natural ventilation performance of heritage buildings in the Mediterranean climate. The case of a two-storey urban traditional dwelling in Nicosia, Cyprus.”** Paper presented at the 9th Windsor Conference: Making Comfort Relevant, Windsor, UK. 328-339.

Thravalou, S., Michael, A., Philokyprou, M., & Savvides, A. (2015). **The role of semi-open spaces as thermal environment modifiers in Cypriot vernacular rural architecture.** Paper presented at the *International Conference on Sustainability in Architectural Cultural Heritage*, Limassol, Cyprus.

Michael, A., Philokyprou, M., Thravalou, S., & Ioannou, I. (2013). **Contribution of bioclimatic elements to thermal comfort: Heritage Case Study in Nicosia, Cyprus.** Paper presented at the *Sustainable Architecture for a Renewable Future, PLEA2013*, Munich, *E-Book*

Philokyprou, M., Michael, A., & Thravalou, S. (2013). **Assessment of the bioclimatic elements of vernacular architecture. The historic centre of Nicosia, Cyprus.** Paper presented at the *Le Vie Dei Mercanti XI Forum Internazionale Di Studi*, Aversa, Capri. 666-675.

Thravalou, S., & Vassiliou, M., Rois. (2013). **“Urban stitching at the last divided capital, Nicosia, Cyprus”.** Paper presented at the *Changing Cities: Spatial, morphological, formal and socio-economic dimensions*, Skiathos, Greece

Lectures & Interviews

Thravalou, S. & Alexandrou K. (2022, December 8). **Building Information Modelling to Building Performance Simulation (BIM to BPS), Lessons learned.** 2nd Workshop of Urban Periscope Research program. [Online]

Thravalou, S. & Alexandrou K. (2022, March 9). **Building Information Modelling for Energy Efficiency in the public sector.** Workshop on Business Information Modelling: Funded BIM projects in Cyprus – BIM & Innovation. Encore Research program. [Online]

Interview: 'BEEP promotes Building Information Modelling and energy performance simulation among building professionals in Cyprus'. (2022, February 4). [Online]

Thravalou, S. (2022, October 28). **Digital tools for preservation and energy upgrade of heritage buildings**. International Conference: Rehabilitation in Europe. Renovation Wave and NextGeneration EU, Madrid, Spain.

Professional experience

- 10.2013 onwards **Building Energy Certification Inspector** in Greece - Residential buildings (level 1)
- 09.2016 – 05.2017 **Architect Engineer**
Architecture Studio «A&P Architects», Nicosia (Cyprus)
- 09.2011 – 10.2012 **Architect Engineer – Sustainability Consultant**
Architecture Studio **CHRISTOS BARDIS & Associates**, Athens (Greece)
- 05.2010 – 07.2010
& 10.2007 – 06.2008 **Architect Engineer**
Architecture Studio **THEANO FOTIOY, MARIA KAFRITSA & Partners**, Athens (Greece)
- 10.2010 – 12.2010 **Architect Engineer**
Architecture Studio **LAMBROS LAMBROU & Partners**, Athens (Greece)
- 09.2008 – 12.2008 **Architect Engineer**
Architecture Studio **GIANAKAKHS & Partners**, Chania (Greece)

Training / Seminars

- 21 – 24.03.2022 Training course on **Technological innovation in rehabilitation, for adaptation to habitability and use**
Mobility under ErasmusPlus framework – Smart Rehabilitation 3.0 program
Universitat Politècnica de Catalunya - UPC, Barcelona (Spain)
- 20 – 24.09.2021 Training course on **Conservation and Restoration**
Mobility under ErasmusPlus framework – Smart Rehabilitation 3.0 program
University of Palermo - UNIPA, Department of Architecture, Palermo (Italy)
- 09 – 10.2020 Massive Open Online Course (MOOC): **Heritage under Threat**
Universiteit Leiden and Centre for Global Heritage and Development
Duration:30 h, offered online through Coursera
- 10.06 – 14.06.2019 ICOMOS University Forum: **Thinking and planning the future in heritage management**
ICOMOS International and ICOMOS Netherlands, Amsterdam (Netherlands)
- 06.03 – 08.03.2017 **Energy Plus Software Training**
(EnergyPlus Fundamentals, EnergyPlus HVAC, Design Builder EMS)
Duration:22.5 h, DESIGNBUILDER & BIG LADDER SOFTWARE, Brussels (Belgium)
- 22.02 – 19.05.2016 **Nearly Zero Energy Buildings (nZEB)**
Duration:110 h, KEK EUROTraining, Athens (Greece)

- 18.05 – 30.05.2015 **Application of Building Energy Management Systems (BEMS)** in the building sector
Duration: 40 h, IAAC, Barcelona (Spain)
- 15.04 – 17.04.2015 **Design Builder Software Training**
(Natural ventilation, Daylighting & Renewables, Internal and External CFD, Detailed HVAC)
Duration: 25 h, Design Builder Ltd & UCL, London (United Kingdom)
- 02.04 – 02.05.2012 **Energy Audition - Energy Performance Certification**
Duration: 60 h, KEK ΔHMHTPA, Athens (Greece)
- 27.09 – 01.10.2010 **Natural lighting and energy saving**
Duration: 20h, IEKEEM TEE, Athens (Greece)
- 03.11 – 01.12.2009 **Materials, construction techniques and sustainability**
Duration: 47h, LA CASA ENCENDIDA, Madrid (Spain)
- 26.09 – 28.11.2005 **Bioclimatic Architecture**
Duration: 20h, HELLENIC SOCIETY for the protection of the Environment and the Cultural Heritage, Athens (Greece)

Participation in Academic, Scientific & Professional Committees

- 03.2017 – 12.2021 Member of the Technical Advisory Group for the research program
«Preserve Traditional Buildings through Energy Reduction» (VIOLET)
- 09.2018 -2020 Member of the Advisory and Scientific Committee for the research program:
«Sustainable Historic Districts» (SUSHI)
- 12/2019–Present **Reviewer**, Building and Environment, Elsevier.
- 2015 –Present Membership: International Council of Monuments and Sites, **ICOMOS**- Cyprus
- 2014 –Present Membership: Scientific Technical Chamber of Cyprus, CSTC – **ETEK**
- 2013 –Present Membership: Cyprus Architects Association, CAA – **ΣAK**
- 2008 –Present Membership: Scientific Technical Chamber of Greece, TCG – **TEE**

Awards

- 09.2018 – 05.2019
& 09.2015 – 05.2016 **Annual Scholarship from the University of Cyprus**
for PhD studies at University of Cyprus
- 01.2009 – 03.2010 **Full Scholarship from Bodosakis Foundation**
for master studies at Universidad Politecnica of Madrid

Foreign Languages

English	Excellent Knowledge	CERTIFICATE OF ADVANCED ENGLISH (C1), Grade B
Spanish	Excellent Knowledge	DIPLOMA DEESPANOL (C2)
Portuguese	Good knowledge	PRINCIPIANTE (A2)
German	Basic Knowledge	ZERTIFIKAT (C1)