



THE CYPRUS
INSTITUTE

RESEARCH • TECHNOLOGY • INNOVATION

Curriculum Vitae

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The Cyprus Institute

EEWRC

20 Konstantinou Kavafi St.

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Cyprus

Academic and Professional details:

Education:

- 09.2013 – 11.2021 **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)
Qualification / study and educational institute

Professional Experience:

- 10.2013 – Present **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)

Research Experience:

- 01.04.2020 – Present **«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)
Program framework European Union, **ENI-CBC-MED**
Project Budget € 19,000,000 (total budget)
Website <http://www.enicbcmed.eu/projects/beep>
- 01.11.2020 – present **«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
Program framework European Commission, **ERASMUS+ program**
KA 2: Strategic Partnership for Higher Education
Project Budget 41,991 (sub-budget) € 249,855 (total budget)
Website <http://www.hersus.org>
- 01.11.2019 – present **«SMART Rehabilitation 3.0» (SEPIE)**
Research assistant
University of Cyprus, Department of Architecture, Nicosia
Program framework European Commission, **ERASMUS+ program**
KA 2: Strategic Partnership for Higher Education
Project Budget 30,458 (sub-budget) € 209,117 (total budget)
Website <http://www.smart-rehabilitation.eu>
- 06.2019 – 02.2020 **«Towards Zero Energy Hospitals in the Balkan Region» (ZenH Balkan)**
Research assistant
The Cyprus Institute. Energy, Environment and Water Research Center (EEWRC)
Program framework European Union, **INTERREG**
Project Budget €180.000 (sub-budget)
Website <https://www.zenhbalkan.edu.gr>
- 05.2017 – 06.2017 **«Contemporary Techniques of Conservation and Restoration of Traditional Buildings and Settlements» (EduCult)**
Teaching professional
University of Cyprus, Department of Architecture, Nicosia (Cyprus)
Program framework Training course in Nicosia. Module: «The environmental approach of contemporary techniques of conservation and restoration of traditional buildings»
European Commission, **ERASMUS+ program**
KA1 - Mobility for VET learners and Staff (2016-1-EL01-KA102-023282)
Project Budget €5.250 (sub-budget), €32.895 (total-budget)
- 09.2016 – 10.2016 **«Energy and Environmental Design of Buildings Research Program» (E&EDB)**
Research assistant
University of Cyprus, Department of Architecture, Nicosia (Cyprus)
Program framework University of Cyprus (UCY), **STARTUP Research Grand of Aimilios Michael**
Project Budget €56.000
Website <http://www.ucy.ac.cy/arch/en/research/research-activities/research-labs#EEDB>

06.2014 – 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)
 Program framework University of Cyprus (UCY), **Internal research programs** (2012)
 Project Budget €68.000
 Website www.biocultural.ac.cy

10.2012 – 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)
 Program framework **Research Promotion Foundation (IPE - RPF) HUMANITIES- 0609(BIE)07:**
 Project Budget €100.000
 Website www.biovernacular.ac.cy

Teaching Experience:

09.2021 – Ongoing **University teaching professional**
 09.2020 – 07.2021 **POL 604 / POL 704 / POL804: Capstone Design**
 09.2019 – 07.2020 **(Energy retrofit of an existing office building – use of numerical simulation)**
 09.2018 – 07.2019 Interdepartmental Postgraduate Programme «Energy Technologies and Sustainable Design» (IPP-ETSD), University of Cyprus (UCY), Nicosia (Cyprus)

01.2021 – 05.2022 **University teaching professional**
 01.2018 – 05.2018 **ARCH 539: Passive and Active Systems: High-Performance Building Envelopes**
 University of Cyprus (UCY), Department of Architecture, Nicosia (Cyprus)

09.2016 – 05.2017 **Teaching Assistant**
APH 311: Vernacular Architecture and Contemporary Issues
APH 516: Buildings in History
 University of Cyprus (UCY), Department of Architecture, Nicosia (Cyprus)

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

17.03.2016 **Workshop Instructor: Adobe mudbrick hands-on workshop.**
 Organization: UNESCO Schools' Network, in collaboration with Between the Lines Ltd. Agros, (Cyprus)

09.11.15 – 13.11.2015 **Workshop Instructor**
ARCH 491 Catalyst: Earth Building Workshop: From the unit to the wholeness.
 University of Nicosia (UNIC), Department of Architecture

Honours and Achievements:

Scholarships:

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

Competitions:

03.2010 **Mention** in the International University Competition
SB10 MAD «Sustainable City: The rehabilitation as a tool», Madrid
Project « El barrio de futuro en 8 letras »
Sustainable rehabilitation of a neighborhood, Canillas, Madrid, Spain

07.2008 **The “Natural” Tiny House Top 10 of 2008**
<http://www.naturalhomes.org/tinyhouse.htm>
Cal museum made of cob, in Madamados, Lesbos, Greece

Other Skills:

English	Excellent Knowledge	CERTIFICATE OF ADVANCED ENGLISH (C1)
Spanish	Excellent Knowledge	DIPLOMA DE ESPANOL (C2)
Portuguese	Good knowledge	PRINCIPIANTE (A2)
German	Basic Knowledge	ZERTIFIKAT (C1)

Professional Service and Memberships:

03.2017–12.2021	Member of the Advisory and Scientific Committee: «Preserve Traditional Buildings through Energy Reduction» (VIOLET)
Program framework	European Union, INTERREG (Priority Axis 5.1 Preserving, protecting, promoting and developing natural and cultural heritage) (Partner: Cyprus Energy Agency)
Website	https://www.interregeurope.eu/violet/
09.2018–2020	Member of the Advisory and Scientific Committee: «Sustainable Historic Districts» (SUSHI)
Program framework	EIT Climate-KIC (Partner: Cyprus Energy Agency)
Website	https://sustainablehistoriccitydistricts.wordpress.com/
2013 –Present	Vice-President of the NGO Geodomo Cyprus Educational organisation aiming at promoting natural building materials and techniques
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

Training Attended:

- 09 – 10.2020 **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 Buillder 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 EUOTraining, 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)

Publications:

- Books / Book chapters **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
- 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.** Euro-Mediterranean Journal for Environmental Integration. Springer
- Dimoudi, A., Kantzioura, A., Toumpoulides, P., Zoras, S., Dimitriou, S., **Thravalou, S., Metaj, M., Mara, E., Dorri, A., & Serghides, D. (2021). 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*. Springer.

Philokyprou, M., Michael, A., **Thravalou, S.**, & Heracleous, C. (2014). In Philokyprou M., Michael A. (Eds.), *Bioclimatic approach of vernacular architecture of Cyprus*. Nicosia: Research Programme BIOVERNACULAR. Retrieved from 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 Journals **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. doi: 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.**, Philokyprou. 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

Conferences **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.

Serghides, D., Dimitriou, S., Kyprianou, I., & **Thravalou, S.** (2021). **Energy Performance of Healthcare Facilities in 3 Climatic Zones in Cyprus.** Proceedings of WREC2020, Lisbon, Portugal.

A. Dimoudi, A. Kantzioura, P. Toumpoulides, P. Zoras, D. Serghides, S. Dimitriou, S. **Thravalou, M.** Metaj, E. Mara and A. Dorri, (2019). **Zero energy hospitals - the**

prospects for energy upgrade of hospital buildings in the Balkan region. Proceedings of the International Scientific Conference on Energy and Climate Change (PromitheasNet), Athens, Greece

Thravalou, S. (2018). Cultural heritage and identity in contested spatial entities. The case study of Nicosia, Cyprus. Proceedings of *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. Proceedings of the *4th Biennial of Urban and Architectural Heritage*, Nicosia, Cyprus. pp. 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.** Proceedings of the *XIIth World Congress on Earthen Architectures Terra2016*, Lyon, France. Retrieved from <https://craterre.hypotheses.org/1827>

Thravalou, S., Philokyprou, M., & Michael, A. (2016). The impact of architectural design interventions and occupant interactions on thermal comfort in built vernacular heritage. Proceedings of the 2nd International Conference *EECHB on Energy Efficiency and Comfort in Historical Buildings*, Brussels, Belgium. 102-109.

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." Proceedings of the 9th Windsor Conference: Making Comfort Relevant, Windsor, UK. 328-339. Retrieved from http://nceub.org.uk/W2016/W2016_index.html

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

Philokyprou, M., Michael, A., & **Thravalou, S. (2013). Assessment of the bioclimatic elements of vernacular architecture. The historic centre of Nicosia, Cyprus.** Proceedings of 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". Proceedings of the *Changing Cities: Spatial, morphological, formal and socio-economic dimensions*, Skiathos, Greece

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

Conferences (Poster) Savva Y., Georgiou, E., Ioannou S., Neophytou, E. **Thravalou S. (2018). High-Performance Building Envelopes: Energy Retrofit Interventions in a High-Rise Office Building in Nicosia.** Poster presented at the *6th International Conference on Renewable Energy Sources & Energy Efficiency*, Nicosia, Cyprus

Koufopavlou, C., Georgiou, N., Ioannou, M., **Thravalou S.** (2018) **High-Performance Building Envelopes: Re-leave Project. Double-Skin Green Façade Applications in Nicosia.** Poster presented at the *6th International Conference on Renewable Energy Sources & Energy Efficiency*, Nicosia, Cyprus

Thravalou, S., Antoniou, G., Christoforou, C., Euthyvolou C., Georgiou D., Ioannou K., Kekkou K., Kontonis, P.R., Koufopavlou, C., Kozakos, D., Koufexis A., Kynigos, M., Spyrou, A., Symeou, A. and Michopoulos A. (2018). **Capstone Design Project: A Methodology Approach Towards Sustainable Energy Retrofit Solutions in Cyprus.** Poster presented at the *6th International Conference on Renewable Energy Sources & Energy Efficiency*, Nicosia, Cyprus

Postgraduate thesis **Thravalou, S.** (2009). **Rehabilitación energética de edificios consolidados en samos, Grecia.** In F. J. Neila González (Ed.), *Ambitat: 18 propuestas de arquitectura medioambiental* (1st ed.). Madrid, Spain: INGEBOOKS. Retrieved from <http://www.ingebook.com>

Bachelor thesis **Thravalou, S.**, & Vassileiou, M.,Rois. (2007). **At the last divided capital (Nicosia, Cyprus)** (Bachelor thesis, School of Architecture, National Technical University of Athens). Retrieved from <https://courses.arch.ntua.gr/121798.htm>