

Event:

## ENERGY in BUILDINGS 2025


Date:

Saturday, November 15, 2025

Place:

Athens, Greece



#	<b>Sofia Orfanou</b> MSc Graduate in Sustainable Environmental Design	
Title:	MSc Graduate in Sustainable Environmental Design, Architectural School of Architecture, London UK	
email:	Sophiaorf79@gmail.com	•
Presentation title:	<b>Adaptive Thermal Comfort in Refugee Accommodation: The Mediterranean Case</b>	
<p>The concept of emergency shelters has existed for thousands of years, serving as a crucial response mechanism to accommodate displaced populations during crises. According to UNHCR, by the end of 2023, there were 117.3 million forcibly displaced people worldwide seeking safety and a better future. Greece, particularly its Aegean islands, has become a primary entry point and hotspot, facing intense pressure that results in overcrowded camps and substandard living conditions. The Greek asylum system struggles to cope with the influx, and the shelters currently deployed by UNHCR fall short of essential living standards. Many asylum seekers report a range of issues, including the shelters' inability to adapt to diverse climates and user needs. These one-size-fits-all units lack adaptive design strategies, with result to overheating and general discomfort. Structurally, they fail to provide thermal stability due to inadequate materials, poor thermal mass and not appropriate shading devices. This research paper seeks to better understand the requirements of temporary living spaces, acknowledging climate change and user comfort standards. The study utilizes thermal modelling with Energy Plus, supported by literature reviews on thermal comfort and passive environmental strategies, to inform the development of a lightweight, adaptable shelter prototype. The main outcome presents design guidelines that prioritize user comfort, environmental responsiveness, ease of relocation and autonomy.</p>		
Short CV:		
<p>Sofia Orfanou completed her studies in Interior Design in London and subsequently worked at an architectural and design studio. She recently earned a Master of Science in Sustainable Environmental Design from the Architectural Association School of Architecture, where her dissertation focused on the thermal performance of refugee shelters in the Mediterranean climate.</p>		
CV:		
<p>Sofia Orfanou holds a BA (Hons) in Interior Design from the University of the Arts London. Following her undergraduate studies, she worked at an architectural and interior design studio in London, where she developed her professional skills as an Interior Designer. She recently earned a Master of Science in Sustainable Environmental Design (SED) from the Architectural Association School of Architecture, where she advanced her expertise in sustainable design strategies and environmental analysis. Her dissertation examined the thermal performance and well-being of refugee accommodation in the Mediterranean climate, aiming to contribute to the creation of more adaptive and humane living environments for displaced populations. During her master's degree, Sofia explored advanced digital tools and simulation software to assess environmental parameters that promote sustainability in the built environment. She is currently pursuing the LEED Green Associate certification, further strengthening her commitment to environmentally responsible design.</p>		