

Event:

ENERGY in BUILDINGS 2025


Date:

Saturday, November 15, 2025

Place:

Athens, Greece



#	Alexandra Makarezou Architect Engineer, MArch (NTUA), MSc Sustainable Environmental Design (AA), Architect Engineer (Mitsis Group)	
Title:	Architect Engineer at Mitsis Group, Athens, Greece	
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Presentation title:	Neoclassical Buildings in Mediterranean Climates: Balancing Conservation, Comfort and Energy Efficiency	
<p>The building sector is one of the largest energy consumers in Europe, and achieving net-zero greenhouse gas emissions by 2050 requires upgrading the existing building stock. Nearly 30% of Europe's buildings predate 1945, and many possess architectural and cultural value that must be preserved. Historic buildings are often exempt from energy efficiency directives; however, heritage should be regarded as a non-renewable resource whose preservation must be integrated into sustainable development. This perspective not only enhances building performance and occupant comfort but also enables heritage structures to adapt to contemporary and future climates while safeguarding their architectural value against the impacts of climate change.</p> <p>This presentation highlights, within the Mediterranean climatic context of Athens, an appropriate methodology for retrofitting neoclassical buildings, exploring potential strategies and occupancy approaches. To ground the study on concrete evidence, an abandoned listed neoclassical building in the city centre which will be reactivated as a hotel is used as a case study. The presentation will outline the key steps from pre-design analysis to the formulation of retrofit strategies, identifying the risks and opportunities inherent in this building type.</p> <p>Fieldwork and dynamic thermal simulations assess scenarios ranging from neutral to high impact on heritage significance, evaluating their outcomes on comfort and energy use. The findings reinforce the principle of "doing more with less": first, maximize the adaptive potential of the historic fabric through operation and minimal intervention, then consider more invasive strategies where necessary.</p> <p>Ultimately, the presentation questions whether greater flexibility in conservation practice is required to balance retrofit efficiency and heritage protection—ensuring that historic buildings remain both culturally significant and environmentally resilient.</p>		
Short CV:		
<p>Alexandra Makarezou earned a degree in Architectural Engineering from the National Technical University of Athens in 2022 and has since worked for the Mitsis Hotels Group as an Architect Engineer, gaining experience in the preparation and on-site construction supervision of major hotel renovation and new construction projects. In September of 2025 she completed an MSc in <i>Sustainable Environmental Design</i> at the Architectural Association.</p>		

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CV:

Alexandra Makarezou commenced her studies in the School of Architecture at the National Technical University of Athens in 2016. During her studies, she consistently sought to cultivate architectural sensitivity toward the environments created for people and to explore how spatial design interacts with, influences, and is influenced by the natural context. This approach was strongly reflected in her final academic projects.

Her lecture thesis, “Designing for the City in the Pandemic – Historical Experience and Contemporary Approaches,” examined how urban centers proved vulnerable to an invisible threat such as the COVID-19 pandemic, the substantial spatial transformations that occurred during lockdown, and the questions these raised for future urban planning. Her design thesis, “Reforming the Glade: Fusion of Arts and Leisure in Dionysos,” proposed the activation of a void within the natural landscape, aiming to highlight the history of Dionysos and enhance contemporary life through the integration of leisure and the arts, while respecting and complementing the natural environment.

In 2021, she joined Pyramida Design and Construction, part of Greece’s largest domestic hotel group, Mitsis Group, as an Architect Engineer. She has since contributed as a project architect to major hospitality renovations and new constructions of varying scales, typologies, and landscapes — including the conversion of a warehouse and office building into the Mitsis N’U Piraeus Port Hotel, and currently, the large-scale renovation and extension of a resort complex in Rhodes. Her work focuses on coordinating the transition between design and construction phases, emphasizing interdisciplinary collaboration and on-site supervision.

In September 2025, she completed an MSc in Sustainable Environmental Design at the Architectural Association School of Architecture, aiming to deepen her expertise in sustainability practices and design tools and to promote the dissemination of environmental awareness within the Greek architectural community. Her postgraduate thesis focused on the relationship between historic and listed buildings and environmental upgrading strategies, exploring ways to balance conservation, energy efficiency, and human comfort—an issue of growing importance in Greece, and particularly in Athens, as the existing building stock must adapt to future climate challenges.