

Title: Investigating the thermal properties of adobe masonry walls of vernacular dwellings (Adobes)

Program duration: 24 months (until November 2023)

Project Coordinator: Maria Philokyprou

Research Coordinator: M. Philokyprou, University of Cyprus

Principal Investigator: Maria Philokyprou

Funding: University of Cyprus (UCY) Internal Research Programmes (Grant €51.000)

Collaborators: University of Cyprus, Department of Antiquities, Department of Town Planning and Housing

Research Team: M. Philokyprou, A. Michael, I. Ioannou, M. Costi, C. Herakleous, E. Malaktou, S. Thravalou, R. Panayiotou, A. Kyriakides

Description: In the framework of this research program, the thermal properties of adobe will be investigated through in-situ monitoring of adobe walls, laboratory investigation of adobes as well as modeling and simulation of adobe masonries and typical spaces of dwellings. Thermal inertia, which is one of the main thermal property of adobes, will be also investigated as it contributes to a delay of heat transmission and to restriction of temperature deviations between the external and internal environment, thus establishing more stable indoor thermal conditions.