**WATER DETERIORATION IN ADOBE STRUCTURES AND MEASURES TO TAKE**



**Authors** Seyhan YARDIMLI, Murat DAL

**Address** Istanbul Aydın University, Munzur University photo )

**E-Mail** [seyhanyardimli@aydin.edu.tr](mailto:seyhanyardimli@aydin.edu.tr), [muratdal@munzur.edu.tr](mailto:muratdal@munzur.edu.tr)

**ABSTRACT**

Having met habitation needs since antiquity, adobe structures are still used despite the technological developments of our age. Concurrently, it is known that these structures are still of decent quality in regards to controlling heat and moisture. One of the most important problems of adobe structure that are used for so many years is the fact they are weak when it comes to water resistance.

Just as adobe structures can be erected by first having the mud prepared in the construction dry out in the molds, they can also be constructed by pouring and compressing into the molds to form the structure walls. Amongst important methods in protecting these structures against water are; to form a drainage and rock foundation for water coming from ground-level and to raise the structure from ground level. Measures to take in protecting the structure’s outer wall surfaces from water would be to make use of overhanging eaves as well as utilizing a more durable type of plaster. The use of water-resistance coating materials and plumbing insulation where deemed necessary ensures wet spaces inside the structure are protected against water.

Constructing these structures by taking preventive measures and detailing them in ways that will protect them against water will extend the life of these structures and increase the comfort while they are inhabited.

**Keywords:** adobe structure, water deterioration, water preventive measures