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Summary In this study, it was aimed to develop conservation methodologies for the historic sandstones using the case of Nemrut Mount Monument to help their survival in open air conditions. The main conservation approach of this study was holistic as well as aiming at minimum intervention targeted to the problem areas. The most important weathering forms of Nemrut Sandstones were material loss due to loss of scales and granular disintegration as well as detachments by scales, back weathering due to loss of scales, cracking, granular disintegration, rounding/notching and discoloration/biological deposition. Deterioration mechanisms of sandstones were studied on deteriorated and relatively sound sandstones by nondestructive methods of UPV and QIRT, and by microstructural analyses using thin section, XRD and SEM-EDX analyses. In addition, the changes in physical and physcomechanical properties such as, color, bulk density, effective porosity, hydric, hygric and thermal dilatation and CEC of clays were determined. Sandstone deterioration was caused by swelling of clay minerals distributed in their matrix and clay accumulations between the detaching scales. Considerable thermal dilatation characteristics was also an important decay factor. Iron oxides caused discoloration at the surfaces, their phase changes was thought to be important in decay. The use of surfactant DAA, to control clay swelling was found to decrease the hydric dilatation by 40%. The consolidation treatments with nanosilica and silicate dispersions namely Funcosil KSE500STE, SytonX3, KSE300 and KSE100 have improved physicomechanical properties as followed by UPV measurements and decreased hydric dilatation. Their long term behaviour needed to be further investigated