

?????????, ??????, ?????????? ??????, ?????????????? ?????? (???????, ?????? ? ????????, 3. VII 1939). ?????????? ?? ?????????????? ?????????? ? ?????? 1963, ? ?????????? ?? ?? ? ?????????? 1982. ?? 1964. ?? 1974. ?????? ?? ?????? ?????????? ? „?????????????????“ (?????), ?? ?????????? ?????????? ? ?????????? ??????????. ?????? ?? ? ?????? ?????????????? ?????? ?????? ? ?????????? ?????????? ?????? ?????? ?????????? ?? ?????????? ?????? (????????? ?????????? ??? ? ??????, ?????? ?? 19, 21 ? 23 ?????? ? ??? ???? ? ??????). O? 1974. ?? 2004. ????? j? ? ?????????? ?? ?????????????? ?????????????? ? ?????????? ?????????????? (?????) ? ??????, ??? ?????? ?????????? ? ?????????????? ?????? ?? ?????????? ?????????????? ?????????????? ?????????? ??????????????, ??? ?? ?????????? ?????????? ?? 1986, ? ?????????? ?????????? ?????? ?????????? ? ?????????? 2004. ?????????? ?? ?????????????? ? ?????????? ?????????? ?? ?????????? ?????????????? ?????????????? ?????????? ??????????????, ??? ?? ??????. ??? ?? ?????????? ?????????? ?? ??? ?????????????? (?????? ??????????????, ?????????? ??????????????, ?????????????? ??? ??, ?????????? ?????????????? ??????????, ?? ? ?????????? ? ??.), ??????? UNESCO-? ? ?????????? ?????????? ??, ?????????? ?? ?????????? ?????????? ? ?????????, ?? ?????????? ? ?????????? ?????? ?????????????? ?????????????? ?? ?????? ? ???. ?????? ?????????????????? ??? ?? *Structural Consolidations, Repair and Strengthening of Monuments* (New York 1994), ? ?????????????????? ??????????????, ?????????? ? ??????? ?????????? ?????????, ??? ? ?????? ?? ??????? ?????????????? ?????????????? ? ?????????? ??????????????. ??? ?? ?????????????? ? ?????? ?????????????? ?????? ?????? ??????????????, ?????????????? ?????????? ?????????????????? ? ?????????????? ?????????????? ?????????? ?????? ?????????? ??, ?????????? ??, ?????????? ?????????? ?????????? ? ??????, ?????????? ? ???. ?????????? ?? ?????????? ?????????? ?? ?????? ?? ?????????? ?????????? ?????????? ?????????? „????? ??????“, ?? ?????????? ? ?????? ??????, ?????? ?? 2005.

?????: ????????, *Repair and Strengthening of Reinforced Concrete, Stone and Brick-Masonry Buildings*, Vienna 1983; ? M. G. Oliva, R. W. Clough, „Seismic Testing of Large Panels Walls; Correlations of Pseudostatic and Shaking table tests“, *Earthquake Engineering and Structural Dynamics*, 1990, 19, N6; ???????, *Seismic Strengthening and Conservation of Byzantine Churches in Macedonia*, Los Angeles 2004.

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*????? ?? ?????????? ? 1. ????? III ??? ?????? ?????????????????? (2018)