

Abstract:

The present study investigates the technology and pathology of the tile and stone mosaic epigraph in the upper view of the khodaaykhane of the Atiq Mosque, and tries to provide a plan for preserving and reconstructing the epigraph which dates back to the Al-e-inju dynasty and Abu Eshagh term. Without this epigraph a significant part of the identity and charm of the khodaykhane would be lost. Based on the evidence provided in this study, in 1935, only the pilpa was remaining and due to the reconstruction conducted in 1926, the pilpa cannot be distinguished from other parts. Since no significant study has been conducted on this epigraph to date, and all literature on the history of the Atiq mosque point to the epigraph only superficially, in this study we try to investigate the technics used in making the epigraph and to distinguish the reconstructed parts from others, as well as to identify the damages to the epigraph and provide solutions to prevent from the further destruction of the epigraph.

Based on the field studies, observations and library research, it turned out to be a highly significant work of art in Iranian architecture. The results of AAS, XRD, SEM-EDX analyses and petrography of the stone and tile of the epigraph (glaze and body of the tiles, the mortar used on the back of the tiles as well as old and new stones of the epigraph) revealed that the body of the tiles are made of clay and the color of the glazes were produced by pigmenting factors of cobalt, copper, tin and lead, tin and manganese oxides and lime stone was used in making the epigraph. The results also revealed that the pigmenting factor of the glazes and the ingredients of the tiles are the same in the reconstructed parts and the pilpa, and the materials used in making both new and old stones are the same. The microscopic and laboratory investigations showed that this epigraph has been greatly damaged; therefore the present study tries to provide solutions to preserve the epigraph.

Key words: Al-e-inju, the Atiq Mosque, Khodaykhane, mosaic, tile and stone, technology