

Abstract:

In this research Khan bridge, a famous and strategic masonry bridge from safavi era, which is located in the previous road of Shiraz-Isfahan, has been studied in order to propose a proper restoration plan. This structure has had a great history and was a witness to very important historical events, however it has been subjected to many natural and human damages in recent years. This leads to its gradual deterioration. This survey in the first step has studied the history, architecture and structure of Khan Bridge and reveals its heritage features and values. For this, some studies have been done on the history of Iranian masonry bridges and technology of built in these structures. After drawing pathology maps of the bridge, some computer and numerical analysis has been done on it in order to determine causes of damages. Finally regarding the damages and by considering restoration principles of minimum intervention and reversibility, an appropriate restoration plan for Khan Bridge has been represented.

Key words: Khan Bridge. Pathology. Structural Analysis. Masonry Bridges. Restoration Plan.