

## عنوان مقاله:

New Approach of Reconstruction Used in Documentation, Modeling and Determining Structure Pattern of Architectural Elements

## محل انتشار:

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## نویسندگان:

Amir Sarabi - MSc Student in Architecture, Faculty of Art and Architecture, Department of Architecture, University of Kurdistan, Sanandaj, Iran

Salahedin Molanaei - Assistant Professor, Faculty of Art and Architecture, Department of Architecture, University of Kurdistan, Sanandaj, Iran

## خلاصه مقاله:

This study presents a new method for documentation, modeling and determining structure pattern of valuable architectural elements. Precise and efficient documentation is essential for preservation, reconstruction and restoration; and one of its most basic and a crucial part is modeling. Close-range photogrammetry (CRP) is a method that can generate precise model without need to have expensive devices and trained users. Determining structure pattern of architectural elements for reconstruction and restoration purpose of them is another goal of this study that curve fitting algorithms and geometrical analysis of vaults have been considered. To implement and evaluate the suggested method of study, original vault under the dome of 'Kabood' mosque of Tabriz, Iran was chosen. After precise modeling and validation of its output using CRP, its output used for extracting structure pattern in format of a mathematical formula using curve fitting algorithms. This method could determine the structure pattern and will help to design a reconstruction plan of other destroyed vaults of this mosque using the pattern of original vault

## کلمات کلیدی:

Reconstruction, Architecture, 3D Modeling, Structure Pattern, CRP

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