

Reconstruction and restoration of the desert City of Bam in respect to seismic aspects



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ABSTRACT

The main issue of this research is how in respect of earthquakes, the safety of people living in Bam can be increased. The city of Bam is located in the Kerman province in the south-east of Iran. At 5.26.26 of December 26th 2003 an earthquake of magnitude 6.5 MS struck the city, while the population was sleeping. Many causes led to the destruction of the buildings and the high number of victims, but some of major importance were found. Some result from common human behavior.

To find the causes, I studied the city, its history and culture, the mechanistic aspects of this earthquake, earthquake effects in the region, building schemes and construction methods in Bam, collapsed buildings and many other aspects. Also the investigation of earthquakes that occurred in similar regions is very important.

When a city is completely ruined, authorities and planners can decide on restoration. If it only occurs in very long time periods then restoration at the same site is one of the best options. But if there are indications of repetition of the disaster then reconstruction should be preceded by searching the nearest new safe site for the city. After that urban planning can start. In reality cultural aspects make such a procedure often hard to execute. People selected the original dwelling site because of regional qualities and in time the attractions got stronger.

This paper describes effects of the direction of geological cracks under the city, what is a safe site for reconstructing and restoring a future city and what are the best axis lines along which to develop it. Culture is a major aspect in this process and will be elaborated on. Finding optimum specifications for building elements is of major importance.

KEY WORDS :

Earthquake, restoration, building, Bam