عنوان مقاله:

Sound quality of historical mosques in Tabriz in accordance with international standards

محل انتشار:

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خلاصه مقاله:

Sound is one of the important factors in creating a good feeling in a mosque and it can play a role as a sensory medium to communicate spiritually with God. Therefore, the acoustic standards have defined the optimal level for the mosque in the field of various variables. In order to compare the acoustic conditions of the use of the mosque with the standard limits, the present research has carried out field measurements and software analysis of the standing position in order to simulate the prayer position. Form and volume are the two considered architectural parameters and Background Noise (BN), Reverberation Time (RT), and Sound Pressure Level (SPL) are the three acoustic variables of the study. A total number of ۱۵ historical mosques in Tabriz are divided into three large, medium, and small volume categories and five form categories have been tested. The reference of the study is ISO۳۳۸۲-۱ and ISO۳۳۸۲-۲ and the measurements were made with B&K equipment. In addition to the direct achievements, the results have been adapted to international standards and show that the acoustic situation in the historical mosques of Tabriz, regardless of their volume and form, produces sound in the range of ۶۰ to ۹۰ phones, and in terms of RT, have the suitable design from the volume point of view, but the lack of carpet flooring in some of them has increased the RT. The background noise in these examples is less than NC-۲۵, which provides a quiet space for the user and provides the necessary concentration for individual worship.

کلمات کلیدی:

Architectural acoustics, mosque, Form, Volume, acoustic standards