USE OF “PHOTO-MODELING TECHNIQUES” IN 3D DOCUMENTATION OF ISLAMIC ARCHITECTURE HERITAGE SITES IN OCCUPIED JERUSALEM (AL-QUDS CITY)

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Abstract

The Palestinian land in general and Al-Quds City (Jerusalem) and its Islamic heritage in particular is suffering from the Israeli occupation abuse that obliterates the Arabic Islamic identity of the city. Further more, the occupation trying to demolish the Aqsa mosque by digging and excavating underneath the holy mosque. All this aims to twisting the historical facts and erasing the Palestinian cultural heritage. Therefore, the obstacles always have been instituted to stop any restoration efforts. This paper suggests an interactive virtual 3D model to be built for the Aqsa mosque based on the new techniques of virtual reality supported by photo-modeling techniques. The used pictures are not indented to be especially taken for the model generation, thus important manipulation and techniques are used to prepare those pictures and make them suitable to be used in the virtual 3D models. The research aims to apply the suggested method to generate a complete virtual 3D model for the Aqsa (plaza) mosque contains the entire existing Islamic and Christian heritage. The research is a case study has been conducted under the researcher supervision. The model has been generated based on the available pictures in the references in hand and that because of the difficulty of having new pictures to the holy place regarding the current political complicated situation. The suggested virtual 3D model is indented to be in great help in teaching history of Islamic Architecture courses and it is a reliable 3D documentation for the holy mosque and “dome of the rock” as well.