VR-assisted Architectural Design in a Heritage Site: the
Sagrada Familià Case Study

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Virtual Reality (VR) simulations have long been proposed to allow
users to explore both yet-to-built buildings in architectural
design, and ancient, remote or disappeared buildings in cultural
heritage. In this paper we describe an on-going VR project on
an UNESCO World Heritage Site that simultaneously addresses
both scenarios: supporting architects in the task of designing
the remaining parts of a large unfinished building, and simulating
existing parts that define the environment that new designs
must conform to. The main challenge for the team of architects
is to advance towards the project completion being faithful to
the original Gaudí’s project, since many plans, drawings and plaster models were lost. We analyze the main requirements
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collaborative architectural design in such a unique scenario, describe the main technical challenges, and discuss the lessons

learned after one year of use of the system.

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