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3D representation of the urban evolution of Braga using the CityEngine tool.

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The morphological evolution of the city of Braga has been the subject of several studies focusing on different urban areas and in different periods.

Using the accumulated knowledge provided by the available archaeological, historical and iconographic data of Braga, between the Roman times and the nineteenth century, we intend to present a working methodology for 3D representation of urban areas and its evolution, using CityEngine ESRI tool.

Different types of graphic and cartographic data will be integrated in an archaeological information system for the characterization of urban buildings of different periods. Linking this information system to the rules of characterization of urban spaces through the CityEngine tool, we draw the 3D urban spaces and their changes. The building characterization rules include several parameters of architectural elements that can be dynamically changed according to the current information.

This methodology will be applied to the better known areas within of the city allowing the creation of different and dynamic layouts. Considerations about the concepts, challenges and constraints of CityEngine tool for recording and representing urban evolution knowledge will be discussed.