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### 3D WEBGIS AND VISUALIZATION ISSUES FOR ARCHITECTURES AND LARGE SITES

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**Abstract.** Traditionally, within the field of archaeology and, more generally, within the cultural heritage domain, Geographical Information Systems (GIS) have been mostly used as support to cataloguing activities, essentially operating as gateways to large geo-referenced archives of specialised cultural heritage information. Additionally GIS have proved to be essential to help cultural heritage institutions improve management of their historical information, providing the means for detection of otherwise hard-to-discover spatial patterns, supporting with computation tools necessary to perform spatial clustering, proximity and orientation analysis.

This paper presents a platform developed to answer to both the aforementioned issues, by allowing geo-referenced cataloguing of multi-media resources of cultural relevance as well as access, in a user-friendly manner, through an interactive 3D geobrowser which operates as single point of access to the available digital repositories. The solution has been showcased in the context of "Festival dell' Economia" (*the Fair of Economics*) a major event recently occurred in Trento, Italy and it has allowed visitors of the event to interactively access an extremely large repository of information, as well as their metadata, available across the area of the Autonomous Province of Trento, in Italy.

Within the event, an extremely large repository was made accessible, via the network, through web-services, from a 3D interactive geobrowser developed by the authors. The 3D scene was enriched with a number of Points of Interest (POIs) linking to information available within various databases. The software package was deployed with a complex hardware set-up composed of a large composite panoramic screen covering a horizontal field of view of 240 degrees.

[Conference Paper](#) (PDF, 799 KB)

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