Underground city as a record for past geodiversity: a multi-approach for geoheritage promotion in urban areas

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The “geological reason” of a city is always a proper starting point to understand the historical evolution of urban areas. However, where the human presence modified and covered the initial natural location is quite difficult to find outcrops for understanding the original geological and geomorphological arrangement. For this reason the underground cities is sometimes the unique opportunity to have meaningful records of the geological history of an area.

To have numerous and well-distributed anthropic underground cavities allows us to understand the palaeogeographic conditions preceding urbanization in an areal extent (spatial correlation). Moreover, if the excavation walls exhibit sufficiently complete and undisturbed vertical stratigraphic structures, the chronological sequence is present (timeline). Thus underground cities are ideal sites to learn the local geodiversity in space and in (past) time.

In addition, considering that in historical cities the most meaningful hidden cavities are focused in the downtowns, it is common to find a strong correlation between the geological value with the archaeological, architectural and historical ones. The union of different aspects increases the capability of these sites to be used as cultural attractors. With the aim to disseminate the concepts of geodiversity and geoheritage toward a wide audience, the underground cities became one of the best tool for scientists, administrators, teachers or touristic guides.

In this paper the Perugia city (Umbria, central Italy) is proposed as the test area, furthermore a conceptual scheme, in order to illustrate the best practice to use geodiversity as connection between urban geology and geoheritage promotion, is proposed.