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Vienna's Anthropocene and anthropogenic geochemical signals

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Vienna, with its long settlement history and the first geological city map recognizing anthropogenic strata published by Eduard Suess in 1865, is a prominent place to carry out this study financed by the WWTF (Vienna Science and Technology Fund, ESR18-040). One point of focus is the search for possible geochemical markers associated with anthropogenic influence and their distribution in anthropogenic strata. Trace metals such as copper and lead can be enriched in and around human settlements and thus mark cultural horizons. Over time, the distribution of anthropogenic contaminants and technofossils may change, thus recording the growth and evolution of the city. With the support of the Department of Urban Archaeology (Vienna Museum) and the Municipal Department for Bridge Construction and Foundation Engineering (Ma 29) it is possible to obtain samples from archaeological excavations and geological drill cores. A handheld XRF device is used to study geochemistry and trends. Tentative interpretation of preliminary results might indicate a potential enrichment of copper and lead in samples of probable medieval age, though research is still ongoing.