

The importance of urban geological mapping

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The city of Ouro Preto is the first World Heritage Site in Brazil, and has just lost part of its historical heritage, due to the torrential rains that have currently devastated many Brazilian states. Landslides happen every year in Brazil with a great loss of lives and assets, and little action has been taken to minimize this situation.

Twice, REM published the article “The importance of urban geological mapping in Brazil”, by the author Glycon de Paiva (v. 44, n. 3 and 4, p. 121-122, 1991 and v. 53, n. 2, p. 85-86, 2000). In this article, the author advocates: *geological surveys in our country, from the point of view of priority, should focus, with decreasing preference, on urban areas and surroundings; on mineralized provinces with easy economic updating of mineral resources; on the locations of major infrastructural works (bridges, dams, highways in mountainous regions, etc.) and only subsidiarily on the country's demographic voids.*

And justifies: *The urban subsoil is homogeneous. It is necessary to discover its structure and geometry so that, with greater safety, and at a lower cost, it can be used for the infrastructural service of cities (water and sewage pipes; underground transport route or not; foundation of buildings; geotechnical dimensions; containment of slopes; guarantee of ecological balance; use of existing groundwater, etc.)*

Furthermore, according to him, the Brazilian population was, at the time of the study, 65% urban, and was heading towards 80%. On the other hand, 82% of the national revenue is produced in the cities, and he ends: *In short, the basic urban geology is more profitable for the Nation than the mining geology that produces mineral goods.” This is because the basic infrastructure of the cities is extraordinarily cheap, where two-thirds of the Brazilian people live and earn money.*

The advantageous use of Geology in urban development, in the eyes of the populations, would have the merit of educating them to the benefits of the practice of this Science, writes the aforementioned author, and he ends by saying that this would also allow the full use of geology professionals, adding to their limited task of conditioning the production of a few hundred economic minerals.

Ouro Preto is one of the best studied places by Geotechnics, and many articles have already been published in REM or other journals, but little has been undertaken by governments, whether municipal, state and/or Federal.

In two pages, Glycon de Paiva summarized, 30 years ago, the same events that are currently taking place in several parts of Brazil, including the neglect that happens to the country's first Unesco world heritage site.

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