

New Geological map of the Rio de Janeiro County (1:50.000 scale)

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This map presents the geology of Rio following thirty five years of the publication of the classic Hembold, Leonardos & Valença's geological map of the area. This new map was generated essentially on the basis of field work as well as on the compilation of an increasing volume of geochronological and petrological data on the Precambrian and Phaenozoic rocks of Rio that became available in the literature in more recent years. In addition, a genetic approach, as opposed to a descriptive one, was adopted for the systematics of representing the geological units. As such, high grade, metasedimentary rocks represent a passive margin related to the Congo palaeocontinent whereas an associated deformed igneous complex represents the Neoproterozoic arc of the Brasiliano/Pan-African orogeny, for instance. Late- to post-collisional granites, Mesozoic to Tertiary tholeiitic and alkaline dyke swarms as well as Caenozoic sediments are also represented on the map. Additional features are the description of the mapped units and explanatory notes including the tectonic evolution of Brasiliano/Pan-African-related Ribeira mobile belt as well as the most relevant petrologic, structural and geochronological data for the rocks of Rio.