

[ID124] THE UPPER BASIN OF THE ESTORÃOS RIVER (PONTE DE LIMA, PORTUGAL) – GEOLOGICAL ASSESSMENT IN THE MULTIPURPOSE USE OF AN ELEMENTARY TERRITORIAL UNIT WITHIN THE REGIONAL PLANNING

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Abstract

From a methodological point of view, it is argued that, in analytical terms, the division into elementary units of the upper basin type is the most adequate to reveal the diversity and typology of geological attributes to be inscribed in the potentialities and resources of a basin of higher order. Along with other alveolar and tributary basins, an elementary unit like this is characterized by an identity, attributes and status that, once properly organized, support a balanced composition and a synthesis of characterization adjusted to higher order regional space planning, in this case, the Lima Basin and the municipal administrative space of Ponte de Lima. The study of an Upper Basin reveals in an analytical and clearer way the potentialities and geological resources and the specific bottlenecks and main obstacles to the valorization of resources. As a case study, Vale do Rio Estorãos is used, as it represents a multiplicity of situations typical of the Lima Basin and because it is functional in supporting the composition of administrative decisions regarding the territory of which it is part. The Estorãos river valley is part of the Lima river basin and is a tributary of the north bank. Having defined the area of interest, Bacia Alta, the period of interest concerns the genesis of the entities that make up the heritage and geological resources and their anthropic use, with all the environmental liabilities associated with it. The most frequent and complex anthropic use occurs or is predicted for a period of time coinciding with the Anthropocene. The reference geological base includes: granitic rocks, whose installation was controlled by the evolution of the Variscan Orogeny; Silurian metasedimentary terranes belonging to the Central Minho Unit; Quaternary fluvial and fluviolacustrine terrace deposits and recent alluvia. The diversity of geological incidences and corresponding punctual and sectoral constraints to the basin planning includes places and areas of geological interest, foreseeing a substantiated insertion of the potentialities in broader levels of organization. In this regard, it is relevant to analyze the following components of basin space reshaping, since the beginning of the great Anthropocene acceleration, by convention located in 1950: agricultural issues; residue management; water management; mining related activities; patrimonial issues; infrastructures.

Keywords | Territorial unit, Estorãos valley, geological resources, land use.