

## [ID122] GEOLOGICAL INCIDENCES IN MULTIFUNCTIONAL TERRITORIES FROM THE PLIOCENE TO THE ANTHROPOCENE – CIRCUMSTANCES AND LIABILITIES

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### Abstract

Conceptually, for a given expression of power, the territory is a primordial resource which, in turn, has as its attributes the various intrinsic natural assets, including geological resources. Also, conceptually speaking, territories are multifunctional and usable – they provide services (ecoservices and services with economic value). In this sense, a consumption or cancellation of geological resources, especially non-renewable ones, is always a definitive consumption or a definitive degradation of the value of a territory. Reciprocally, the loss or consumption of a fraction of territory implies the loss or consumption of the resources that are its attribute. During the HOLOCENE, a very rapid evolution of circumstances and liabilities related to the Human use of territorial units, subject to appropriation, has been observed. On the other hand, there are no longer any territorial units without some form or multiple forms of appropriation. Since the 1950s of the twentieth century, ecosystems, understood as essential components of the different territorial appropriations, have been modified in a faster and more profound way than ever before. Proximal causes of this trend are the combined effects of an unprecedented increase in consumption - especially in countries belonging to the Organization for Economic Cooperation and Development - a significant and heterogeneous increase in the human population, an important economic growth and an expansive to explosive urbanization. In this study we analyze some reflexes and markers that materialize from the geological point of view – stratigraphic, mineralogical and technological - the Anthropocene inclusion or transition, in the Holocene and the Great Acceleration supported in Steffen et al. (2015). These markers include lithological and mineralogical signatures dependent on neobiogenesis and neolithogenesis, anthropogenic scattered pellets and micropellets, technofossils and derelict mining buildings / excavations included in the scope of industrial archaeology. It is justifiable to consider the unprecedented coexistence of materials produced by anthropogenesis and to diagnose evolutions that, although attributable to natural systems, have at their starting point anthropic activities that, in a holistic way, can provide a measure of the state and trend of evolution of the services that a given territory, space or geological system can provide.

**Keywords** | Ecoservices, territorial services, Holocene, Anthropocene, consumption diagnosis.