

# Why Geo-Humanities ?

Robert Casals i Graells\*, Anna Sibilla\*\*, Martin Bohle\*\*\*

\*IMI Joint Undertaking (Brussels), \*\*EASME (Brussels),

\*\*\*Corresponding Citizen Scientist – IAPG (Rome) / DG RTD (Brussels)

## Essay

**Scope of Geo-humanities:** Throughout their history humans developed their skills to alter their environments. While first this kind of 'human geo-biosphere intersections' was collateral to the human activities, nowadays it is obvious that they are altering Earth. The anthropogenic global change is a composite societal and natural process at a planetary scale, which includes attributes of the geo-biosphere and artefacts of the noosphere [1-6]. With the aim of describing the composite of human geo-biosphere intersections that characterize the Anthropocene, this essay proposes the notion 'geo-humanities' and presents some aspects of its scope. In such a synthesis ('geo-humanities'), the natural sciences contribute to understanding the abiotic and biotic processes, which determine earth-systems dynamics. The humanities contribute to understanding how people interact given their subjective characteristics, which are expressed as world-views, culture, values, preferences, etc. [7-10]. The scope of matters that could be gathered into a corpus of "of geo-humanities may be derived from the purpose that a respective scholarly subject should address [11-15]. We propose as outset, three goals [16]: i) the particular knowledge about the functioning of the intersections of geosphere and noosphere, ii) the societal and individual intentions how to handle these intersections, and iii) the ethical choices how to intersect in a particular manner.

**1. Managing Knowledge:** At present times, the production and consumption pattern of humankind causes fluxes of matter that modify Earth-system dynamics. The notion Anthropocene captures this feature and conveys the message that the development paths of humankind's history and natural earth-systems intersect. Therefore to understand global processes, the know-how of social sciences, humanities and natural sciences have to be synthesized. Furthermore, some forecasting skills will also be needed to understand when human geosphere intersections get altered.

**2. Shaping Intentions:** The interactions of people in the noosphere are of diverse nature and form, e.g. of technical, economic, social, cultural, artistic nature, and of public, collective or individual form. Furthermore, these people-people interactions are both loaded with worldviews and preferences, and purposefully shape personal and shared views and coordinate actors. During the last centuries, the scholarly studies records show both, the appraisal of human works and concern for the state of flora and fauna impacted by these works. The scholarly study records include tales how to master hostile conditions, description of processes (in the noosphere), how skills developed, and accounts of deplorable intersections of human activities with the biosphere. Following an extended period of admiration for human prowess to intervene into biosphere and geosphere, today anthropogenic global change is part of a widespread perception of 'an endangered state of the globe'. In fact, nowadays people worry about the implications for their lifestyle and well-being, and also they wonder how 'to better design' human interventions into biosphere and geosphere.

**3. Justifying Choices:** The manner how the debate on climate change is evolving shows that this debate is about world-views. When making choices people are driven by both, their world-views and preferences and their insights into societal, technical or natural processes. Within that context, the attitude of people towards risk, uncertainties, perception of facts and theories is very different. Going beyond concerns like 'whether it is functioning', people intuitively tend to opt for what they consider as 'right' or 'worth' in the context of their individual world-view. Anthropogenic global change is loaded with implicit societal issues (ethical dilemmas) to an unprecedented level because of the impact on all people. Thus ethics of risk-taking, managing uncertainties or revising options will be needed in a context of applied geoscience.

## Discussion

Our species has acquired the power to engineer planet Earth. However, even if many people may not take notice of the processes and phenomena that characterize the intersections of human activity and geosphere, the anthropogenic global change is subject to the human value-systems, which underpin people's world-views and preferences. People can tackle anthropogenic global change as part of their world-views and preferences only if insights into human geosphere intersections become integrated into their interactions in the noosphere; e.g. reflecting people's lifestyle, preferences, values, and world-views. To that end, the practitioners, professionals, and researchers who understand how intersections of human activity and geosphere function have to share their insights and have to show how value-loaded are the interventions into human geosphere intersections. For any 'culture', the particular issues of 'altering Planet Earth' require that people have insights into the functioning of the human geosphere intersections. Thus for 'altering planet Earth', reliable insights provided by humanities and social sciences are needed, which have to enlarge sound scientific, engineering, technical and economic knowledge that was accumulated during the last decades. Such an enlarged body of knowledge could settle under the notion of "geo-humanities".

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[https://www.researchgate.net/publication/298792574\\_WhyGeoHumanities-Summary\\_for\\_EGU2016](https://www.researchgate.net/publication/298792574_WhyGeoHumanities-Summary_for_EGU2016)

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Carry home

Humans are a kind of an 'engineering species'; and 'People consist of abstract information, including the distinctive ideas, theories, intentions, feelings and other states of mind that characterize [them]' [Deutsch (2012):130]. Humans have built an 'anthropogenic biosphere' through engineering production systems, patterns of consumption, and use of environments.

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