

Geo-Rational - Ethics & Geosciences

Philosophy is the science to engineer
your thinking...



I like to thank Silvia, Eduardo, and many
other colleagues.
Much that I show here does originate
from their works.

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My take home message:

Geoethics = being aware of the societal context(s) of the geosciences

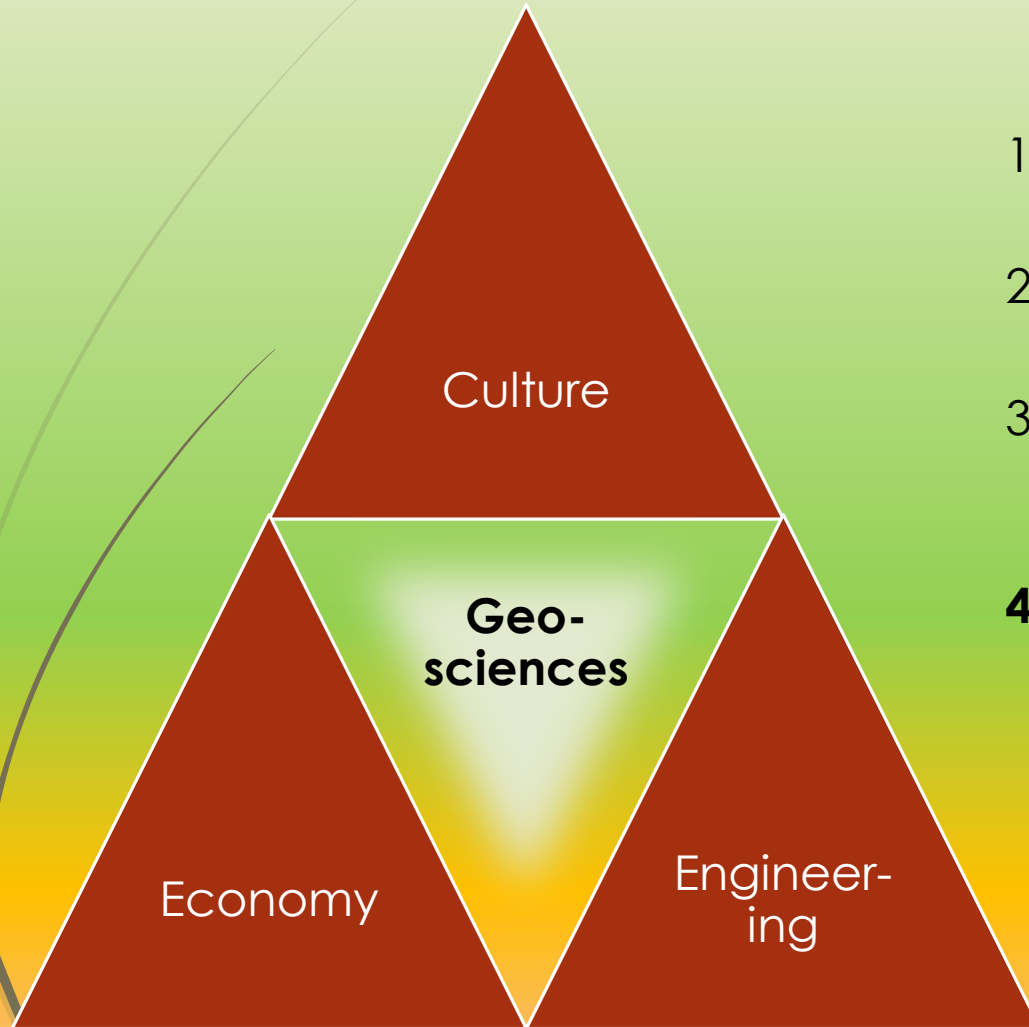


On methodology:

'A philosophy without ontology is invertebrate; it is acephalous without epistemology, confused without semantics, and limbless without axiology, praxeology, and ethics. (Mario Bunge, 1919-2020)

Introduction (1 / 2)

High level context



1. The Human Niche is the planetary network of twinned natural and cultural landscapes.
 2. Geosciences / geoscientists co-shape the development of the human niche.
 3. Bundled by global supply chains, humans restlessly alter the human niche through engineering, production and consumption.
 4. **Geoethics** explores cultural substrates (*values, interests, historical development, etc.* = *what ever describes societal contexts*) from a geoscience perspective.
- **Bohle et al. 2019**, Exploring Geoethics - Ethical Implications, Societal Contexts, and Professional Obligations of the Geosciences. Palgarve, 214p.

Introduction (2 / 2)

Definition¹ of Geoethics in geosciences (<https://www.geoethics.org/definition>)

¹ International Association for Promoting Geosciences

□ **Geoethics** consists of research and reflection on the values which underpin appropriate behaviours and practices, wherever human activities interact with the Earth system.

➤ Geoethics deals with the ethical, social and cultural implications of geoscience knowledge, education, research, practice and communication,...

Responsible
Science

Scientific Culture

...my views [*]

➤ **Geo-Rationale: (1) actor-centric, (2) virtue-focused, (3) responsibility-focused, (4) [geo]science knowledge-based, (5) all-actor-inclusive, (6) universal-rights based**

[*] drawing on the political philosophies, such as: L. Kohlberg (1927-1987), H.

Jonas (1903-1993), M. Bunge (1919-2020), H. Arendt (1906-1975)

Socio-Cultural Contexts of the Geosciences

- ❑ *Implies, to be conscious* of the (i) natural processes, (ii) the socio-political drivers, and the (iii) cultural-ethical features* of the *'human niche'*.

What are related
philosophical framework(s)?

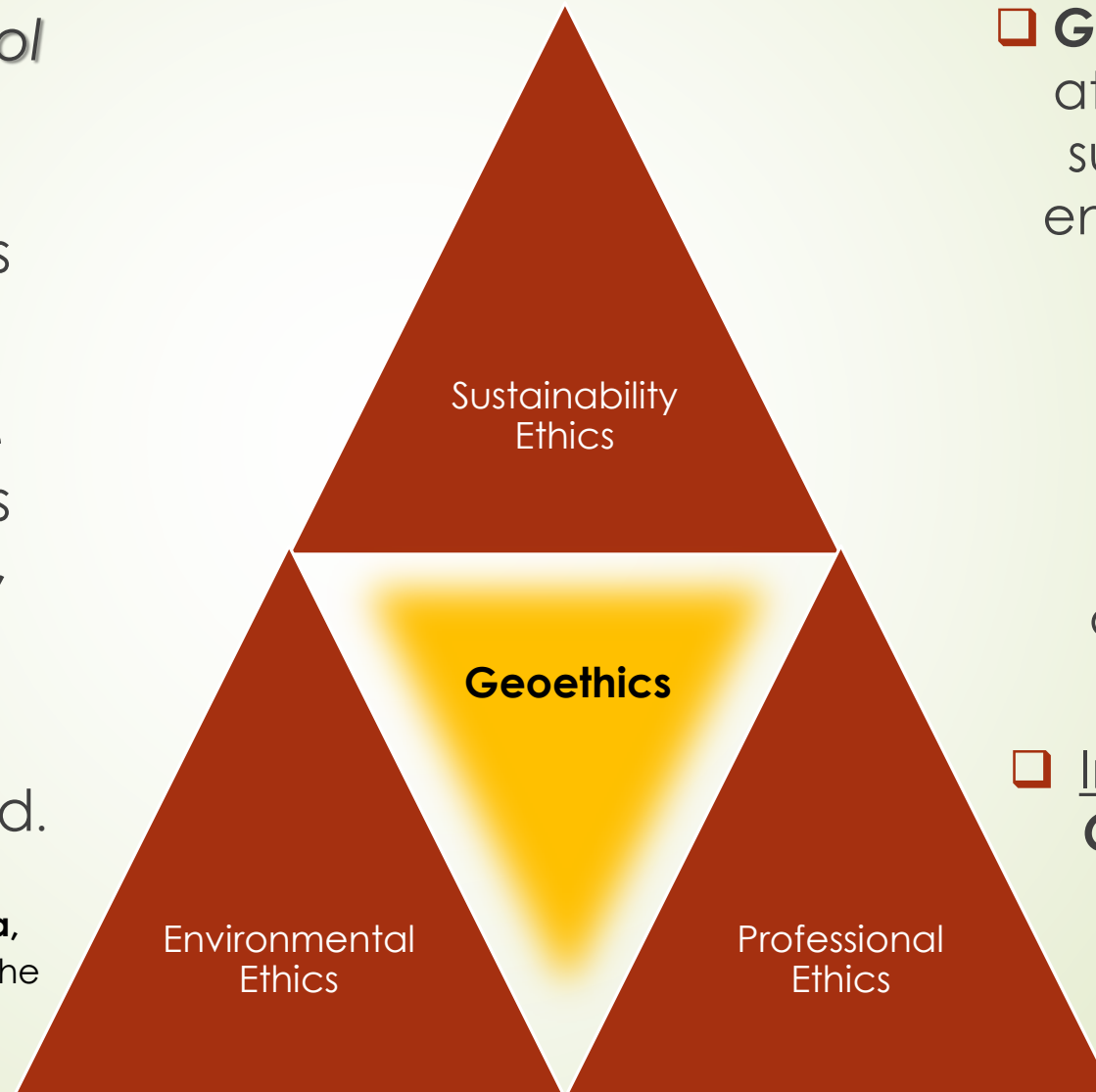
*taking an European-centric perspective



Situating Geoethics

- ❑ **Geoethics** is a *School of Thought* *.
- ❑ **Geoethics'** central tenet is the virtuous and responsible individual who pursues a practice that is geosciences knowledge-based, just, equitable, inclusive, participatory, and ecologically oriented.

• * **Peppoloni, Bilham, and Di Capua**, "Contemporary Geoethics Within the Geosciences."



- ❑ **Geoethics** is situated at the intersection of sustainability ethics, environmental ethics, and professional ethics.
- ❑ **Geoethics** is supporting professionals that apply geoscience expertise.
- ❑ In the first instance, **Geoethics** is about responsible geosciences.

Socio-Cultural Contexts of Geoethics

- Geoethics exhibit a systemic pluralism; namely leaving the human agent the choice of the specific normative ethical framework.

...decision overload?

- ▶ **Consequently**, a sound [geo]ethical practice alters depending on the ethical framework that is applied. Hence, name your framework!

...my views [*]

- ▶ **Tenets of the geo-ethical rationale:**

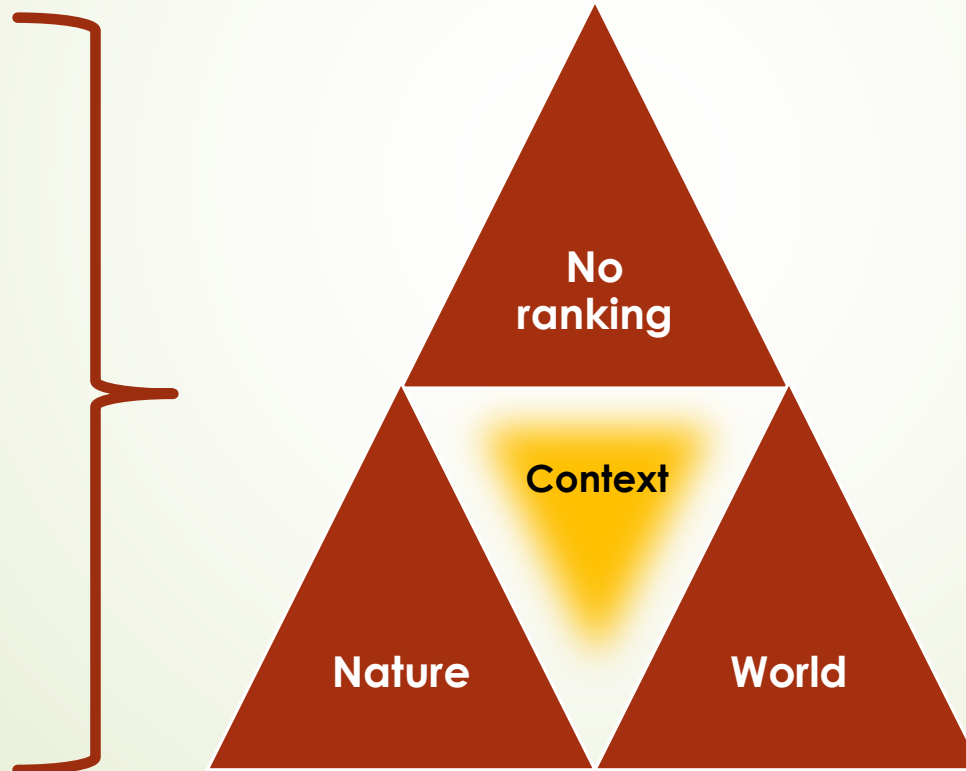
(1) **agency-centric**, (2) **virtue**, (3) **responsibility**, (4) **[geo]science knowledgebase**, (5) **inclusivity**, (6) **universal-rights**;

❖ ...[*] applying the European cultural model.

Applying the Geo-Rationale

- Tenets: (1) agency-centric, (2) virtue, (3) responsibility, (4) [geo]science knowledgebase, (5) inclusivity, (6) universal-rights

- (1)
- (2)
- (3)
- (4)
- (5)
- (6)



What kind of normative ethical framework is applied?

e.g. Aristotelian, Kantian, Utilitarian, Rawlsian, Justice,...

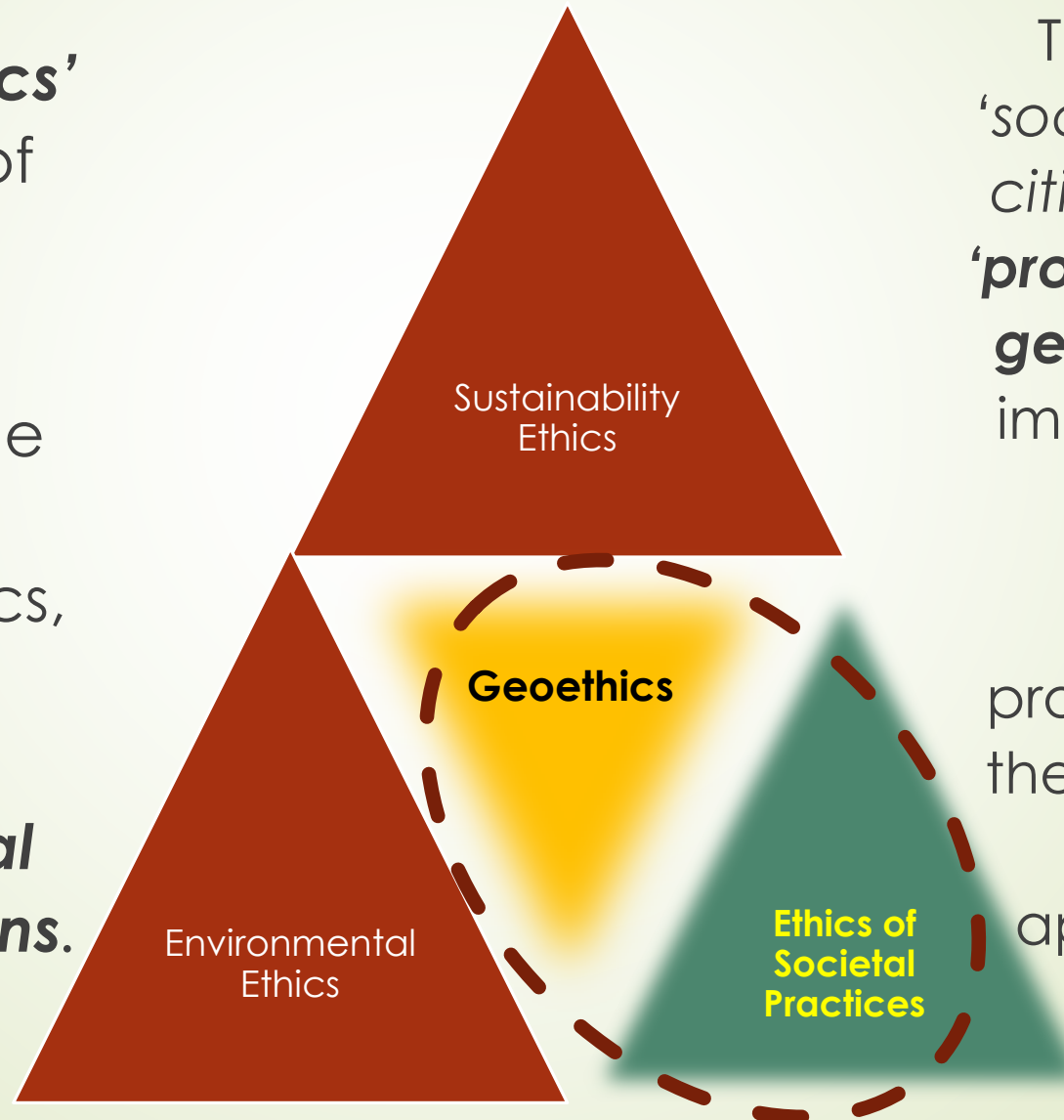
Open issues:

e.g. 'universal (?) human rights', 'rights of nature', 'human condition'...

Summary

The term '**geoethics**' labels a school of philosophical thinking.

It is situated at the intersection of sustainability ethics, environmental ethics, and the **ethics of societal practices of citizens**.



The ethics of the '*societal practices of citizens*' include the '**professional ethics of geoscientists**' as an important subcase.

This variant of professional ethics is the foundation for a sound societal application of the geosciences.

Geo-Rationale – Ethics & Geosciences

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Thank You

A recent publication (open access): „**Geoethics, a Branding for Sustainable Practices**“ <https://www.mdpi.com/2071-1050/13/2/895>