Geoethics – an new approach to include awareness for sociocultural context

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If the geosciences demand to be taken more seriously and to play a greater role in political and societal decision-making, they must take on great responsibility.

If we are to act ethically, we must define values against which decisions about ethical behavior can be made. These values are often summarized as shared geoethical values (see Peppoloni & di Capua, 2017).

These values can be found on

- an Ethical dimension: for example, honesty, integrity, awareness, accuracy, collaboration, inclusiveness, civility, and fairness,
- a Social dimension: addressing the grand challenges (sustainability, prevention, education),
- a Cultural dimension: values such as geological diversity, diversity of geological-geographical landscapes or geological heritage.

Although these values are well founded and can be considered shared values, we need to be aware that they represent a strongly academic (Western) perspective and to some extent disregard other knowledge systems, such as indigenous or traditional ecological knowledge, as well as stressful socioeconomic contexts.

This creates fundamentally new challenges, for example, when the evaluation criteria of different sustainability goals are not compatible with local or regional socio-cultural values. Even different prioritizations can lead to difficulties here, which have an impact not only on research and development but even more so on recommendations for action resulting from the research. Examples of this can be found in the context of the current global Grand Challenges. The increasing demand for highly specialized raw materials, emerging conflicts over resources such as drinking water or soil, or the developments regarding coastal protection caused by climate change are some examples.

With this presentation we want to raise awareness of socio-cultural differences. In order to act geoethically, we need to consider the sociocultural context. Therefore, we want to initiate a discussion on whether and how a contextual model can be integrated into the concept of
geoethics. This contextual model (in analogy with Neuliep’s Contextual Model of Science Communication, 2021) seems to be able to solve the problems that arise when the geosciences claim the important role in global decision making mentioned above.