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GEOETHICAL LEARNING IN HIGHER EDUCATION FOR GOOD PRACTICES OF OUR PALEONTOLOGICAL HERITAGE

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Abstract

In the last decades, the geosciences have experimented the urgent necessity to count on practitioners who possess an ethical conscience and the desire to act responsibly (Bobrowsky et al., 2017). This is especially necessary for an adequate valuation and evaluation of our paleontological heritage (and geoheritage) and for a correct practice of its management and research (Morales et al., 1999; Meléndez, 2018; Meléndez & Peñalver, 2002). Fossils are natural objects resulting from natural processes that connect us with our natural environments but also with our origins and past. The paleontological heritage is therefore strongly linked with both our natural, social and cultural heritage, and cannot be interpreted or studied without this synergetic perspective.

An ethical education learning in class and outdoor (field and fossil sites) can raise key ethical concerns related to this heritage. As such, we propose several useful examples concerning *i*) the increasing use of technological advances and an ambitious development of infrastructures (e.g., mining activities and exploitation of georesources, railroad, highway and residential projects, etc.) often initiated, funded, and influenced by government agencies or powerful public or private organizations; *ii*) individual actions to collect the most spectacular, relevant fossils related to both commercial or collecting, or simple vandalism; and *iii*) the increasing use of fossils in paleontological research, didactic and touristic activities and exhibitions—and its profound impact on sites and fossils, that relate to our paleontological heritage and can thus foster personal growth and enrich the student's education. Identifying and considering ethical issues and dilemmas associated to these topics in paleontology are important for both ethical (adhering to general principles or conceptions of what is right and wrong) and practical reasons.

As geoeducators, we are educating today the generation that will take decisions tomorrow. It is necessary, therefore, to help build an open-minded and ethical mentality for our Higher Education learners. Accordingly, we have to provide guidance and teach values that will make students qualified professionals in the field of geoscience (either educators, researchers, etc.) and ethical citizens.

Keywords: education; geoethics; fossils; paleontological heritage.

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