



Best practices in cooperation between authorities and geoscientists to serve society and ensure adequate protection of our palaeontological heritage

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The geosciences have experimented recently the urgent necessity to count on practitioners who possess an ethical conscience and the desire to act responsibly and serve the society. This is especially necessary in the case of our paleontological heritage. Fossils are natural objects resulting from natural processes that connect us with our natural environments and, also importantly, with our origins and past. The paleontological heritage is therefore strongly linked with our natural, social and cultural heritage, and cannot be interpreted or studied without this synergetic perspective. Transmitting paleontological knowledge to geoscientists (including educators) and authorities, especially based on the findings from the fossil record, must be pivotal in order to ensure adequate protection and conservation of the paleontological heritage, promote responsible research practices and attract attention by society.

An ethical and correct management of the paleontological heritage often raise key ethical concerns. There are a range of 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 public and/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, enrich citizens' knowledge and promote (and improve) interaction between society and this field of geosciences.

More specifically, in Spain there are examples and case studies in the field of geoscience that illustrate how to gain awareness and knowledge about geoethical conflicts between works of infrastructures, and the geoconservation of paleontological sites and the discovery of new fossils, with benefits for society, the administration, and the scientific community.

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 such, geoscientists who are more aware of their ethical and social responsibilities concerning our paleontological heritage will be better able to put their knowledge at the service of society and to help increase public trust in geosciences.