



What?

Geovandalism is when people deliberately alter, damage or destroy features such as rocks, minerals, fossils and landforms that make up the geosphere.

Who?

From scientists undertaking research, to private fossil collectors, to tourists with no previous experience of geology, geovandalism can be carried out by anyone whether they have direct involvement in the Earth sciences or not.

When?

One could say that geovandalism has occurred since humans first evolved, in the Pleistocene epoch. However, it has undoubtedly become a more intense and widespread problem since the Anthropocene, the current geological age in which human activity has significantly shaped the Earth's climate and environment.

How?

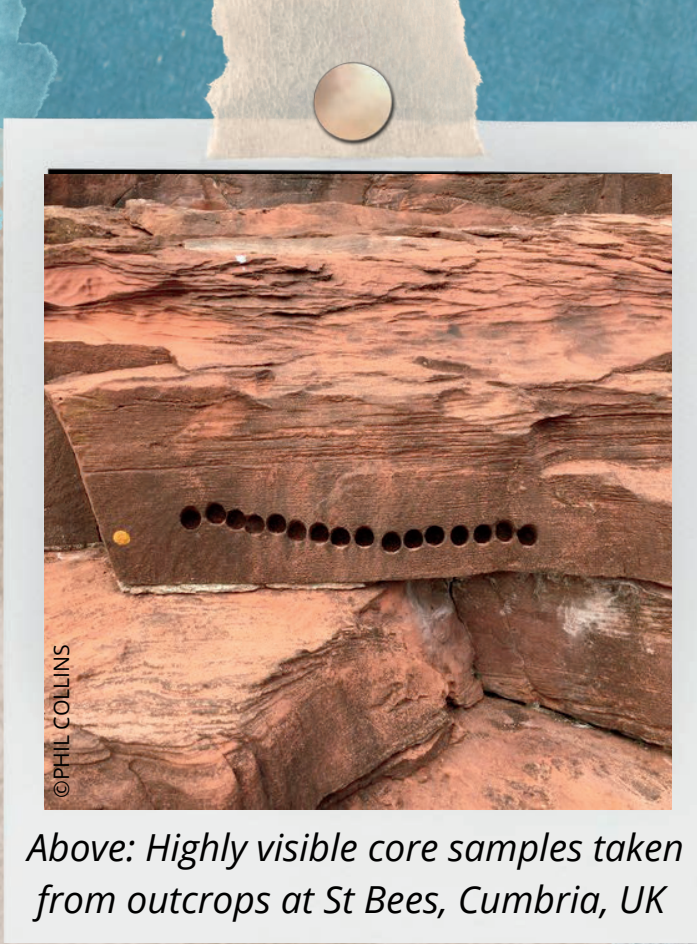
So how can geovandalism be prevented? The problem certainly calls for action by the whole Earth Science community.

We must look at how we teach fieldwork to students. Student field trips are where the Earth scientists of the future learn best (or indeed worst) field practices. Therefore, Earth science professional societies, working together with higher education institutes, should develop ethical and best practice guidelines for instructing students in the geosciences. Ethical field practice should become an assessed part of Earth Science curricula, and field-based research must involve seeking approval from local communities, conservation bodies and landowners and, whenever possible, co-creating and collaborating with those with Indigenous knowledge bases.

Improving environmental stewardship attitudes and behaviours amongst the wider public will help to reduce geovandalism. Earth scientists will have a key role in engaging individuals, community groups and organisations, who may not have much experience with the discipline, to encourage them to adopt more sustainable practices towards the geosphere.

Explore more...

- Foss, S.E. (2019)** Geoethics in the Field: Leading by Example, *Earth*, 8, 8-10
- Davis, J. (2016)** Glad you asked: What is Geovandalism? *Survey Notes*, 48, 8-9
- Natural England (2012)** *Managing geological specimen collecting: responsible collecting*
- Geologists' Association** *Codes of Conduct*: <https://geologistsassociation.org.uk/codesofconduct/>



Above: Highly visible core samples taken from outcrops at St Bees, Cumbria, UK



Where?

Geovandalism occurs all over the world, but usually attracts more attention from the Earth science community, media and wider public when it occurs at world heritage sites (which include natural and cultural heritage sites), national parks, sites of special scientific interest (SSSIs) or areas of conservation.

Why?

Some types of geovandalism are done for a specific purpose, like sampling rocks for scientific study or collecting fossil specimens for commercial trade. Others, such as etching names into outcrops, or toppling rock formations may have no obvious motivation.



Above: A fossil Sauropod dinosaur bone, broken and damaged at Dinosaur National Monument, Utah, USA. Fossil theft is problematic in Utah as deposits of great scientific and educational value can often be found on public land



Above: Graffiti being removed in Starved Rock State Park, Illinois, USA. The vandalised sandstone formation is a sacred Native American site