

Analytical Reading: B.'s Position in Geoscience-Rooted Ethics

An AI-analysis (Opus 4.6, pro, extended reasoning):

Claude.AI prompted with: The attached file is an abstract for the conference "EGU2026", submitted to an EOS session. Analyse the abstract and describe the author's position within studies about ethical concepts rooted in geoscience.

Response: I'll proceed with a rigorous analytical reading of the abstract, aligned with the interdisciplinary and governance-oriented register you've indicated in your preferences.

1. Disciplinary Location

Martin B. situates himself at the intersection of three institutional vectors — independent research (IGDORE), historical-social theory (Max Weber Centre, Erfurt), and the normative-professional community of geoethics (IAPG, Rome). This triangulation is not incidental; it signals a scholar working neither from within a single geoscience discipline nor from a philosophy department, but from the connective tissue between them. His contribution belongs to the field of **geoethics** — a domain that has coalesced since the early 2010s around the question of how Earth-science knowledge entails responsibilities for practitioners and societies.

2. Core Conceptual Architecture

B.'s abstract introduces a precise terminological apparatus worth unpacking:

Telluric vs. tellurian. He distinguishes the *material* planetary habitat (lithosphere, hydrosphere, etc. — the "telluric") from the coupled human-Earth system including agents, institutions, and norms (the "tellurian"). This is a deliberate ontological move: it refuses to treat "the Earth" as a mere object of scientific inquiry and instead frames it as a domain in which norms, cultures, and knowledge are already embedded. The tellurian encompasses the telluric *plus* the social-normative layer.

Geoethics as epistemic–moral hybrids. Drawing on Potthast (2024), B. positions geoethics not as applied ethics imposed onto geoscience from outside, but as an intrinsic fusion of knowledge-claims and value-commitments. This is a philosophically consequential stance: it rejects the fact/value dichotomy as it operates in geoscience governance, insisting that what we *know* about the Earth system already shapes what we *ought* to do, and vice versa.

The design principle. Using formal notation ($\{T_j\}$, V_k , G_i , $\{A_{j,k,i}\}$), B. frames geoethics as a combinatorial structure: tenets drawn from philosophy and geoscience are applied by a social group to a geoscientific issue, yielding tellurian practices understood as means–end complexes. The axiology he names — knowledge, welfare, liberty, solidarity, justice — is recognisably in the tradition of critical humanism and resonates with capability-based accounts of human flourishing.

3. The "Inverse Problem" — B.'s Distinctive Contribution

The conceptual pivot of the abstract is the distinction between the **regular** and **inverse** problems of geoethics:

The *regular problem* asks: given a set of geoethical tenets and a social group, what practices follow for a given Earth-system challenge? This is the standard deductive mode of normative frameworks — start from principles, derive conduct.

The *inverse problem* reverses the direction: given a *desired practice* (e.g., managed retreat from rising seas), which geoethical framing would diverse cultural milieus actually be willing to accept? This inversion is structurally analogous to inverse problems in geophysics (inferring subsurface structure from surface observations), and B. appears to exploit this analogy deliberately.

The significance is threefold. First, it acknowledges **normative pluralism** as an irreducible feature of governance — different cultural milieus interpret both ontology ("what the world is") and obligation ("what ought to be done") differently, and no single set of tenets commands universal assent. Second, it shifts geoethics from a *prescriptive* to a *diagnostic-design* posture: the task is not to announce the correct ethics but to reverse-engineer ethical framings that can actually gain traction across divergent symbolic universes. Third, it treats worldviews and ethics as **endogenous system attributes** of the integrated Earth System, citing Nightingale et al. (2020) — a move that refuses to externalise culture from Earth-system science.

4. Position Within the Field

B.'s stance can be located along several axes that define the current landscape of geoscience-rooted ethics:

Against universalist mono-ethics. Much of the IAPG's early output (Peppoloni & Di Capua, cited here) aimed at articulating a shared normative vocabulary for geoscientists worldwide. B. does not reject this but supplements it with a pluralist, milieu-sensitive layer. His position is that universal tenets alone are insufficient; they must be *re-designed* for uptake by culturally distinct groups.

Within systemism and scientific realism. His declared philosophical commitments (systemism, scientific realism) place him in a Bungean tradition — the world has real structure, knowledge of it is fallible but progressive, and systems thinking is the appropriate meta-method. This distinguishes him from constructivist or post-structuralist approaches to environmental ethics, which would be more sceptical about the possibility of stable "geoscientific insights" combining with philosophical ones.

Toward operationalising governance. The use of milieu typologies (high / moderate / partial / low uptake; rules / trusted brokers / inclusion mechanisms / defensive closure) signals a move toward actionable policy design rather than purely theoretical ethics. This positions B. closer to the governance-studies wing of sustainability science than to moral philosophy *sensu stricto*.

Phronesis tradition. The cited Bohle & Marone (2022) piece on managed retreat invokes *phronesis* — Aristotelian practical wisdom — which further locates his work in virtue-ethics and deliberative traditions rather than in deontological or consequentialist frameworks alone.

5. Summary Assessment

B. occupies a distinctive niche: he treats geoethics as a *design problem* rather than a discovery or declaration problem. His inverse-problem formulation is the most original element, importing a recognisably geophysical logic into normative reasoning. The strength of the position lies in its realism about cultural pluralism and its aspiration to operationalise. The open challenge — which the abstract signals but does not resolve — is whether the milieu typology he employs can bear the normative weight placed on it: specifically, whether mapping "uptake likelihood" across symbolic universes risks reducing ethics to a sociology of acceptance, or whether it genuinely preserves the normative force of the geoethical tenets being adapted.