

Shaken Grounds, Shifting Skies. Seismography of Precarious Presences

An FWF PEEK research project by Nikolaus Gansterer, Mariella Greil, Peter Kozek and Lucie Strecker, in collaboration with Victor Jaschke, Werner Moebius, et al.

Since the beginning of human history, cult sites have emerged in proximity to volcanoes, tectonic fissures, or caves. Through rituals, we once connected with geological time scales far beyond the span of a human life.

Previously regarded as purely natural events, earthquakes and volcanic eruptions are increasingly being attributed to anthropogenic pressures such as climate change, groundwater extraction, geoengineering (including methods like carbon capture and storage), and renewable energy production (particularly geothermal exploration) (Cheng, 2023; McGuire, 2012; Aubry, 2022). Whether these factors lead to more frequent earthquakes or volcanic eruptions remains a matter of controversy amongst geologists, yet current research highlights the complexity of this ecological crisis.

Working with and through contemporary, performative artistic positions that reflect on the geological and societal challenges of this complexity, the project fosters awareness of the need for transdisciplinary engagement.

Shaken Grounds travels to earthquake zones and volcanoes in Southern Italy and Iceland, to one of the world's largest facilities for CO₂ rock storage, "Orca", and to the rapidly melting Pasterze glacier in the Austrian High Alps, in order to trace the intersections between natural seismic activity and anthropogenic environmental destruction through an interwoven network of artistic experiments in dialogue with the natural sciences.

Rather than focusing solely on catastrophe or collapse, Shaken Grounds embraces instability as a state of transformation. It seeks to imagine new forms of attention, relation and care in moments of rupture. When the Earth trembles, can we hold ground together – and if not, can we move with it? Highlighting art as a seismographic practice – as the act of reporting, witnessing or engaging artistically with a world that is tied to shifting, unstable conditions – contributes to ongoing dialogues about the importance of collaborative approaches to global issues.

Shaken Grounds operates between seismicity as a physical, measurable force and as a metaphorical register of vulnerability, transformation and connection. The project engages with seismography as a method of inscription, translation and sensing, examining how artists work with scientific data (including real-time geological data networks such as the European Geological Data Infrastructure (EGDI)), temporal traces, historical and modern artworks, and embodied perception to make the invisible movements of Earth and society tangible.

Historically, seismic events have profoundly influenced philosophical and political thought. The 1755 Lisbon earthquake, for instance, shook the foundations of Enlightenment optimism. Voltaire's *Poème sur le désastre de Lisbonne* and *Candide* critiqued the prevailing belief in a benevolent deity orchestrating a perfect world, challenging Leibniz's theodicy and prompting widespread debate on the nature of evil and suffering. In contrast, Jean-Jacques Rousseau argued that the consequences of the earthquake were determined not by fate but by human choices – such as the decision to build densely in at-risk areas. This perspective reframed natural disasters as social and political phenomena rather than metaphysical or moral ones, placing responsibility within the human domain (Dynes, 2005). At the same time, the catastrophe revealed a countervailing truth: the overwhelming power of non-human forces exposed the fragility of human systems and the limits of Enlightenment rationalism. In this way, the earthquake also hinted at a proto-post-anthropocentric awareness – an early recognition that humans are not always the central agents in shaping history. Thus, this catastrophe not only transformed philosophical discourse but also influenced early media representations grappling with destruction and human vulnerability.

Furthermore, the eighteenth and nineteenth centuries witnessed the formalisation of geology and history as academic disciplines. Geology emerged through systematic studies of Earth's strata and processes, while history developed into the structured analysis of human events. Both disciplines introduced temporal frameworks to understand change over time – geology through deep time and stratigraphy, and history through chronological narratives. This temporal awareness influenced artistic representation, resulting in works depicting natural disasters such as volcanic eruptions and earthquakes, which often symbolised societal upheavals and radical

transformations such as the French Revolution or the Industrial Revolution in Britain (Folie, 2024).

By reflecting on contemporary art practices by also applying an art historical approach, Shaken Grounds offers several significant benefits that enhance the project's objectives. First, it underscores the enduring impact of seismic events on human consciousness. Moreover, temporal layering allows cultural practitioners as well as a broader audience to perceive how interpretations of geological phenomena have evolved, reflecting shifts in societal values and scientific understanding.

In alignment with this historical approach, Shaken Grounds is exploring Iceland's Althing through artistic practice – the world's first documented site of parliamentary culture, an early proto-democratic assembly situated directly on the fault line between the North American and Eurasian tectonic plates.

Drawing on Bruno Latour's theory of the Thing – in which the Thing is not a passive object but a dynamic site of assembly and discourse – and the concept of resonance, which describes meaningful engagement with the world as a responsive, transformative relationship, this artistic engagement explores how shared vulnerability and unstable ground can give rise to collective decision-making, practices of care and relational politics (Latour, 2004; Rosa, 2019). "Thing-ing" as a performative and dialogical method of negotiating instability is applied here as it has been developed, tested, and utilised in previous artistic research (Gansterer and Arteaga, 2019). "Thing-ing" serves as a recurring format for negotiation throughout the project's co-creation process.

Thereby the project also focuses on the body as both a sensor and a site of seismic awareness, utilising somatic practices and trauma-informed methods to explore individual and collective bodily responses to ecological and political disruptions. Through techniques such as myofascial release, Authentic Movement, and Somatic Experiencing, the participating artists engage with experiences of eco-anxiety and existential unease. Seismic metaphors – shaking, cracking, releasing – become tools for processing ecological fear and for cultivating resilience. In this way, somatic practices not only deepen the project's exploration of instability but also extend its commitment to imagining new forms of relation and care in moments of rupture.

Informed by posthuman and new materialist perspectives, and drawing on scholars like Donna Haraway and Rosi Braidotti, as well as Indigenous epistemologies like that articulated by Tyson Yunkaporta, this approach views bodies as porous and continuously interacting with the environment. Land and bodies are treated as interwoven, reciprocal entities, each holding memory, trauma and history. Through artistic practices attentive to seismic phenomena, Shaken Grounds encourages the development of contemporary rituals and deep interactions with sites of geological upheaval, framing the body as a site of both sensitivity and resistance (Braidotti, 2013; Haraway, 2016; Yunkaporta 2019).

Extending this research into public discourse, outcomes have been presented at MAXXI – National Museum of Contemporary Art in Rome, the Volcanic Attitude Festival in Naples, the Berggruen Institute in Venice, as well as at the Künstlerhaus and the MuseumsQuartier in Vienna. Upcoming public presentations will take place on 8 October 2025 at the Tanzquartier Vienna Season Opening and on 15 November 2025 at the Berlin Museum of Medical History. In spring 2026, the Angewandte Interdisciplinary Lab will further activate the project by presenting research artefacts, film excerpts, and discursive formats.

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