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Power and gaze: the human experience of volcanoes across myth, philosophy, literature, and geoethics

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Abstract

Volcanoes assert themselves as true anthropological and cultural topoi*, symbols of nature's power and, at the same time, mirrors of human fragility and aspiration. The awe with which humans have long approached their force has generated mythological, literary, philosophical, and scientific experiences and practices of great fascination and marked cultural interest, revealing how fear and wonder can become drivers of knowledge and responsibility.*

*In this contribution, an attempt will be made to offer an exemplary synthesis of some of these anthropological practices, ranging from myth and its role in the development of scientific thought, to literature and philosophy, with particular attention to the concept of the sublime and to the function of wonder/*tháuma *as both a cognitive and emotional experience.*

From this perspective, volcanoes are not only objects of study or threats to be managed, but also instruments of geoethical reflection, as they invite recognition of our belonging to nature, our finitude, and the need to establish relationships with the environment based

on respect, care, and shared responsibility. Wonder, far from being a mere irrational feeling, thus becomes a driver of prudent behaviour, social awareness, and sustainable practices, integrating scientific knowledge and cultural sensitivity in coexistence with natural forces.

Keywords: Volcanoes, Myth, Awe, Power, Anthropological postures, Geoethics.

But once her gentle, humble, quiet smile
no longer hides its newly minted delights,
in vain the most ancient Sicilian smith
moves his arms toward the forge,
for from Jove's own hand the weapons have been taken,
tempered on Mongibello in every trial.

Francesco Petrarca
(Italian, poet, writer, philosopher and philologist: 1304-1374)

At the summit, there are two craters, of which we ourselves beheld the second, less deep, narrow as the circumference of a well. […]
A stony plain surrounds it in a tight ring; scarcely had we descended into it, almost struck in the face by sudden clouds of sulphur and by smoke as fierce as that issuing from a furnace, when we turned back. […]
[…] it happened that, in the very place we observed most closely, covered with stones barely cooled and still containing fire and sulphur, through a fissure that had opened, there began to gush a river of lava, directly right beneath our feet […].

Pietro Bembo
(Italian writer, grammarian, poet, and humanist: 1470-1547)

1. Introduction

With their spectacular grandeur, volcanoes, in their trajectory from myth to volcanology, have always fascinated and unsettled humans: it is no coincidence that in antiquity, fiery mountains inspired legends everywhere, as can be seen in the rich Greek and Roman mythology (Faraone, 2002; Santacroce and Di Paola, 2006).

In Japan, it is said that Mount Fuji, created by a giant, is inhabited by deities. Kīlauea in Hawaii is considered, according to legend, the home of the goddess Pele. African volcanoes are seen by local populations as gateways to the afterlife, points of contact with those who have passed into the other world. Mount Bromo, in eastern Java, houses demons and spirits. In New Zealand, a Māori legend explains the behaviour and location of three of the main volcanoes on the North Island. According to the story, long ago, Taranaki (the present-day Mount Egmont, dormant for three centuries) and Ruapehu fell in love with the beautiful Tongariro; a terrible battle ensued, during which Ruapehu hurled boiling water from the lake in its crater at his rival. Taranaki responded by raining stones onto Ruapehu, which the volcano swallowed, melted, and spat back at him. Gravely wounded, Taranaki fled toward the sea, carving the Wanganui valley as he went.

In Tanzania, Ol Doinyo Lengai is a sacred volcano, as are all the mountains in the region. In North America, the Native Americans of Wyoming explain the presence of a striking volcanic rock peak, Devil's Tower, with a curious legend: the formation rose from the earth to save seven girls pursued by a giant bear. Lifted off the ground, they thus escaped the monstrous beast. The long vertical grooves on the peak are said to be the marks of its claws. In Nicaragua, the Niquiran people, who once lived at the foot of the Masaya volcano, did not merely explain eruptions as the anger of the residing gods, but sought to appease these terrifying deities by sacrificing young, beautiful women, throwing them alive into the lava lake of the crater.

In the seventeenth century, the Peruvian volcano Huaynaputina erupted violently, with ash rains falling on the nearest city. The local Indigenous people interpreted this dramatic event as the revolt of the volcano against the invasion of the Spanish conquistadors. Many Inca and Aztec accounts associate volcanic eruptions with the arrival of these European invaders and the demise of the native civilizations that had settled in those regions.

One legend, among the many anthropological and mythological narratives surrounding it (Agati, 1987; Santi, 1999), also envelops our own Etna. The myth recounts how Zeus, the father of the gods, clashed with the Titans (the giants: Vian, 1951 and 1952) for control of the Universe, defeating them. He then decided to imprison them, and one of them, Enceladus, was confined underground. Etna arose precisely at

that spot: its eruptions are said to be the fiery breath of the giant, and the tremors and shocks the result of his sudden movements.
The gigantomachy permeates popular tales associated with other Italian volcanoes as well. One of the oldest legends is that of the giants of Vesuvius (Mugnos, 2020), where Alcyoneus, the leader of the rebels who fought the gods of the Greek Olympus, is said to dwell. Twenty-four giants rose up against the twelve Olympian gods and the demigod Heracles, but they were defeated and cast beneath the volcanoes and volcanic islands of the Mediterranean. The grandeur of Vesuvius and its irascible, unpredictably bestial character are clearly reflected in the local narratives of Alcyoneus. The volcano's fiery temperament is consistently associated with infernal forces, but there are other nuances as well: it should not be understood solely in terms of wrath and vehemence, but also as passionate, erotic, thus a fertile land. Regarding the vehemence of Vesuvius, "a horrendous voice," the powerful imagery of the writer Curzio Malaparte (1898-1957) is particularly telling:

> *Vesuvius howled through the night, vomiting blood and fire. Since the day it witnessed the final destruction of Herculaneum and Pompeii, buried alive beneath a tomb of ash and pumice, no voice so terrible had ever filled the sky.* […] *Vesuvius screamed inhumanly through the crimson darkness of that dreadful night, and a heart-wrenching wail rose from the doomed city* (Malaparte, 2010).

Of notable historical and anthropological significance is also the so-called "infernal volcanology," which, in Latin medieval thought, interpreted volcanoes as actual places of expiation (Garbini, 2010).

> *"But, I beg you, why did a ship appear to the soul that was about to depart? And why did the dying man foresee that he would be carried to Sicily?" Gregory: "The soul had no need for vehicles, yet it is not strange that to a man still dwelling in the body should appear what the body was accustomed to see, so that from this he might understand where his soul could be spiritually led. As for the claim of being taken to Sicily, what else can we imagine except that, more than elsewhere, the craters from which the fire of torments erupts are opened in the islands of that land? These, as experts say, widen day by day because the flanks of the mountains loosen, so that, as the end of the world approaches, the more certain it is that the number of those who will be burned increases, the more these places of punishment seem to expand. All this, Almighty God has willed to be seen in our world as a correction for the living, so that the minds of unbelievers, who refuse to believe in the pains of hell, may behold the places of such torments, which they refuse to believe when they hear of them"* (Gregorio Magno [Gregory the Great], 2006).

Even darker and more distressing is the testimony of the Anglo-Saxon nun Ugeburga, who recounts the pilgrimage to the Holy Land in the eighth century undertaken by her brother Willibald:

> […] *and once again Willibald returned to Constantinople. And after two years they sailed from there, with the papal and imperial envoys, toward the island of Sicily, reaching the city of Syracuse; and from there he came to the city of Catania, and thence to Reggio, a city in Calabria. From there they sailed to the island of Vulcana; there lies the hell of Theodoric. And when they arrived there, they disembarked from the ship to see what hell was like. Immediately, Willibald, more curious than the others, desiring to see the interior of hell, also wished to climb to the summit of the mountain beneath which hell lay – but he could not, for the sparks, rising from the black Tartarus to the rim of the crater, lay heaped there like snowflakes that fall from the sky and cover the heights of the earth from the airy heights of the ether; so the sparks accumulated upon the mountaintop, preventing Willibald from ascending. Yet he saw the dark, terrible, and horrendous flame bursting from the depths, and observed that, with a thunderous roar, the enormous blaze and the smoky vapour, towering high, ascended toward the sky. The pumice, usually provided to scribes, was precisely what Willibald saw rising from hell, and then he saw it, blazing, fall into the sea, only to be cast again by the waves onto the shore, where men could gather it and carry it away. Having observed these vapours produced by the heat of this dreadful and fearsome fire, and these extraordinary displays of fiery and acrid smoke, they immediately weighed anchor and sailed toward the church of Saint Bartholomew, which stands upon the seashore, and came to the mountains called the Didymi; there, in prayer, they remained for the entire night. From there, resuming their voyage, they reached the city called Naples* (Holder-Hegger, 1887).

The ambivalent nature of the volcano, also seen as a giver of fertility, is evident, for example, in the *Omaggio Poetico* (transl.: *Poetic Tribute*) of Antonio Di Gennaro, Duke of Belforte (1767) to Archduchess Maria Josepha of Austria (1699-1757), in which Vesuvius, described as a "proud, devastating fire," is, at the same time, dialectically connected to nature as a "cradle":

> *That which thou seest, as though in twain it stood,*
> *A mountain clad in arid, crusted skin,*
> *Like some vast giant, whose embattled breast*
> *Is armed with iron, brow with menace grim:*
> *That is Vesuvius. All the shore doth quake*

When Steropes and Brontes raise the hammer;
From Aetna's forge the limping smith at times
Comes hitherward, and here resumes his labour.
When in its womb the mingled bitumen boils,
It groans at times in dark and hollow roar;
At times a smoky whirlwind rears on high,
Then, hail of stones, collapses on itself.
Whoever dared too boldly to draw near
Has learned how cruel the volcanic sling;
For after inward struggles, fierce and hot,
It pours forth burning rivers, thundering loud.
These streams descend now furious, now slow,
Now thick and stubborn, now less hard and dense;
They ravenously consume the fruitful fields
And all the weary toil of wretched swains.
Old trunks, which once the rage of winds withstood,
Unbent and vigorous against their force,
Before the onslaught of the whirling floods
Bow to the earth, consumed alike and scorched.
No solid wall endures, no lofty tower,
Before the proud, annihilating fire;
There is no thing that can withstand its path:
All places turn to stone where're it flows.
For as its substance runs, it gathers strength,
Hardening in air, and little by little
Loses its inward heat, becoming flint
That clogs the once-delightful countryside.
Who would believe that all would turn away,
Their feet withdrawn in fear to safer ground?
And yet the contrary is seen to pass:
The tilled earth shows proofs of stubborn daring.
While fertile soil is taken from one man,
Another hastens still to plant new joys;
So pleasing is the air, the site so fair,
That in the greatest peril man grows boldest.
Where Pompeii bloomed, behold now Torre rise,
Its name received from sacred mystery;
There swift Sarno strikes and winds around
Engines and wheels, bends iron to its will,

Where skilful hands, inflamed by warlike Mars,
Fashion dread weapons, fatal tools of wrath.
Next comes the eighth Torre, then Resina,
Upon the ruins of entombed Herculaneum.
Portici lies beside it; Villa Reale –
That which I point to thee is thy fair stay.
What delight is ever lacking there! Pure, vital air
Breathes softly all around in gentle flow.
No place on earth can equal such a seat;
Alcinous himself would blush in shame.
Nature, who here perhaps first found her cradle,
Left little, or left nothing, for Art to add.
(Cit., in Di Ricco, 2019)

These legends, narratives, and fantastical, imaginative stories constitute true intergenerational linguistic codes – life practices symbiotically intertwined with the volcano, reflecting the precariousness of populations living near the volcanic area (Casapullo and Gianfrancesco, 2014; Scandone, 2022). In them, the very personification of the volcano points to religious and anthropological phenomena and experiences of varied nature and intensity (Gigante, 1998; Galasso, 2006; Becatti, 2010; Gugg, 2014; Casadio, 2016). In this regard, a passage by the writer Matilde Serao (1856-1927) seems particularly illustrative, as she describes the feelings of the women participating in a procession intended to exorcise the advancing lava threatening the city of Torre Annunziata, at the foot of Vesuvius:

[…] *They were barefoot, their hair loose upon their shoulders; their mouths open and convulsed, to scream, to sob, to weep* […]. *And the cry was one and the same – the cry of the dishevelled women, of those who rushed out onto their doorways, of those who leaned over their balconies – a single cry of delirious supplication: "San Gennaro, San Gennaro, San Gennaro!"*

The human gaze in the face of the continuous excess of nature's power – in our case, volcanoes – has not been limited, of course, to the purely mythological experiential practice, but has also been nourished by anthropological posturology of philosophical and literary origin, up to modern volcanology. In this contribution, we will attempt to provide a concise and exemplary anthropological account of this trajectory.
Within this framework, awe and fear, emotions that have always accompanied human experience of the volcano, do not belong solely to the archaic register of myth. They continue to operate as fundamental emotional devices, capable, if

properly acknowledged, of guiding collective postures and behaviours. It is precisely this original pathos that, in contemporary times, can be translated into operational awareness: indeed, risk science and civil protection confront these emotional legacies, transforming them into practices of preparedness, prevention, and mitigation.
Thus, wonder and fear are not suppressed but reworked into mature forms of coexistence with volcanic power. This gives rise to a modern form of respect for the uncontrollable force of nature, which, freed from archaic beliefs and prejudices and founded on rational, critical, and shared knowledge, does not seek to dominate or neutralize it, but rather to recognize its limits and inhabit them consciously. Such respect promotes an ethics of responsibility and prudence, a geoethics (Peppoloni and Di Capua, 2022), reconfiguring the relationship between humans and the environment in terms of informed coexistence rather than control or mere defense. The natural dimension of human experience thus emerges as a space of vulnerability and learning, where scientific knowledge, cultural memory, and collective emotions converge to develop more mature and sustainable forms of living alongside the power of nature.

2. The vertigo of wonder

Philosophy, and we might say every form of knowledge, including myth, arises from a particular mode of feeling: wonder. This is a point that the Platonic and Aristotelian traditions have established in a paradigmatic way. The two passages referring to the origin of philosophy in wonder/amazement are well known:

> *To be filled with wonder is proper to the philosopher. Indeed, the beginning of philosophy is nothing other than this; and he who said that Iris is the daughter of Thaumas* [*thaumazein* = to experience wonder] *does not seem to me to have erred in his genealogy* (Plato, *Theaetetus*, 155d).

> *Both now and at the beginning (kai nun kai to prôton), human beings began to philosophize because of wonder (dia to thaumazein). At first they were puzzled by the phenomena close at hand, whose causes they could not explain; then, gradually proceeding in this same way, they came to confront greater difficulties, such as the affections of the moon and the sun and the stars, and the origin of the universe* (Aristotle, *Metaphysics*, I.2, 982b12-15).

There is no fertile form of knowledge that is not accompanied by a *pathos*; otherwise, it collapses into the mere registration of facts. The philosopher

Martin Heidegger (1889-1976), not by chance, structured his university course for the summer semester of 1924 around the Fundamental *Concepts of Aristotelian Philosophy*, focusing, in particular, on *Rhetoric* and on the central role of *pathos* as a constitutive moment of the orator.
In very broad terms, Heidegger begins here to establish that intimate dialectic between thought and passion, between "attunement" (*Befindlichkeit*) and "understanding" (*Verstehen*), which would later find its most mature and conceptually dense formulation in *Being and Time* (1927) (Curi, 2013).
This passion, this mode of feeling – in short, wonder – has in Greek a very precise name: *thauma*.
The term does not refer to a simple, soothing sense of marvel; rather, it points to something unsettling and threatening, a kind of *anguished terror* in the face of the inexhaustible becoming of things, of their continuous coming-into-being and passing-away. Faced with this, the human being seeks to provide a remedy, a pharmakon capable of curing the anxiety that disturbs: epistemic knowledge (Greek *ἐπιστήμη*, from *epi-* "upon" and *histēmi* "to stand," "to place," "to establish"; ultimately, "that which stands by itself" – a certain, unassailable form of knowledge: Severino, 1989).
Yet this epistemic pharmacology, this unassailable knowledge, always refers back to the human gaze, precarious, fragile, uncertain, to which no totalizing, complete, or absolute guarantee is ever given. Every epistemic pharmacology ultimately implodes into anthropocentrism (Caffo, 2013), into the myth of human permanence as the ontological and veridical guarantee of the permanence of the world:

> *One of the tricks of anthropocentrism is to describe the end of the species as necessarily implying the death of vegetal and animal nature, the very end of the Earth – the fall of the heavens. There is no eschatology that does not regard the permanence of humankind as essential to the permanence of things. It is conceded that things may begin before us, but not that they might end after us* (Morselli, 1977).

The myth of foundation has been called into question by multiple twentieth-century reflections, as have anthropocentric ideologies and those of cumulative progress. From these critiques have emerged more compelling theories of change, adaptation, multiple possibilities, and the role of chance (Pievani and Remuzzi, 2025).
Science itself – by definition, aware of the non-finality and non-purity of knowledge – today more than ever must move with a kind of sartorial skill between objectivity and "dominant discourse" (Licata, 2022), between public transparency and private productivist confidentiality (Pacchioni, 2025), and among disinformation, grounded knowledge, and practices of life (Gabrielli and Irtelli, 2021). The extreme fragility

of every practice of knowledge, however, does not undermine but rather intensifies the enchantment of the gaze (Sini, 1985); it opens onto the unusual and the unheard-of from which wonder springs (Natoli, 2004; Jullien, 2021).

Ernst Platner (1744-1818), a German Enlightenment thinker inspired by the ideas of Gottfried Wilhelm von Leibniz (1646-1716) and a sharp critic of certain problematic nodes in Kantian thought, observes that wonder is dialectically intertwined with attention – not as a disenchanted practice of contemplation, but rather as an uneasy openness to the unusual, to the unexpected (not by chance does he speak of a "strong and rapid shaking": Platner, 2022).

Now, this attentive and uneasy openness – wonder – induces vertigo. On this point Plato is perfectly clear, where he links wonder to disorientation and, precisely, to vertigo (*Theaetetus*, 155e). The wondering gaze that human beings cast upon the world does not refer to a mere optical phenomenon, nor does it coincide with an empty reactive attitude, a sterile seeing; rather, it constitutes a fertile looking, expressive of a solicitation by the world that involves the subject in a pathetic response (Petrosino, 2021; Gabrielli, 2024)

It is the *pathos* of knowledge: Giacomo Leopardi (1798-1837) himself made pathos the truth-bearing core of reality. Indeed, it is not the mere knowledge of the nonexistence of the immutability of Being, but rather the extreme force, the intensity of this truth, that produces *vertiginous* anguish. An anguish whose remedy, as the philosopher Emanuele Severino (1929-2020) showed in his insightful study of Leopardi's poetry and thought (Severino, 1990), is precisely the *pathos* of knowledge: the productions of genius are "consolation, they rekindle enthusiasm" (*Pensieri*, pp. 259-262).

The verb *"spaura"* in *L'Infinito* (vv. 4-8) paradigmatically reproduces the informing spirit of Leopardi's thought. *"Spaura"* does not indicate mere disorientation, but an *anguished terror*.

Few, like Leopardi, have been able to render with such a clear and *brutal* term that mixture of admiration and terror proper to Greek *thauma*: the wonder from which philosophical and poetic thought springs when faced with the appearing of *bios* – of every biography, of every humanly oriented life – emerging from that original *gaping* which is *chaos* (connected to the verbs *chascō*, *chainō*, "I open, I gape"), only then to fall back into the infinite metamorphosis of *zōē* (the incessant biological life shared by humans, animals, and plants). *Bios*, the provisional dwelling of human beings, produces and practices forms of knowledge that linger in wonder and meditation before the immeasurable power of nature, as, in this specific case, the volcanic power.

Faced with this, as with other natural powers, Immanuel Kant (1724-1804), for example, dissolves the imagination-understanding dialectic that animates the beautiful in order to open onto the sublime, specifically, the dynamic *sublime*, expressive of power.

One example is the eruption of a volcano, which forces human beings to confront that fluid contradiction of feeling oscillating between attraction and repulsion, excitement and fear, our inescapable fragility and the moral dignity of our cognitive faculty. In short, if the beautiful refers to a sense of enchantment (*Reiz*), the sublime takes shape as a stirring (*Rührung*) (Hutcheson, 1988; Hume, 2001; Kant, 2006; Burke, 2008), a movement of the soul. Kant writes:

> *Rocks that tower boldly aloft and appear almost threatening, thunderclouds massing in the sky amid lightning and thunder, volcanoes unleashing all their destructive power, and hurricanes leaving devastation in their wake; the immense ocean stirred into tumult by the storm, the waterfall of a mighty river, and so forth – these reduce our power of resistance to an insignificant smallness when compared with their might.* […] *We readily call such things sublime, because they elevate the powers of the soul above ordinary mediocrity and lead us to discover within ourselves a wholly different faculty of resistance, one that gives us the courage to measure ourselves against the apparent omnipotence of nature* (Kant, 2005).

The power of nature that marks our finitude, Kant repeatedly emphasizes, is nonetheless traced back to the moral superiority of the human being – to its freedom, its dignity, its reason. Kant writes again:

> *For just as, in the immensity of nature and in our inability to find an adequate measure for the aesthetic estimation of the magnitude of its domain, we discovered our own limitation, while at the same time there was revealed to us, in the faculty of reason, another, non-sensuous measure that comprehends that very infinity as a unity, and before which everything in nature is small* […]; *so too the impossibility of resisting natural power makes us aware of our weakness as beings of nature, that is, of our physical weakness, yet simultaneously discloses to us a faculty of judging ourselves as independent of nature, and a superiority we possess over it, from which there arises a mode of self-preservation wholly different from that which can be attacked and endangered by external nature, because by virtue of it the humanity of our person remains intact, even should we have to succumb to the dominion of nature. In this way nature, in our aesthetic judgment, is not judged sublime insofar as it is terrifying, but because it incites that power which is within us (and which is not nature) to regard as insignificant those things that concern us, and thus not to acknowledge in material power a harsh dominion over us and over our personality* (Kant, 2005).

With respect to this position, in which the power of nature is constrained by evident anthropocentric tensions and hemmed in by "*safe havens*" (Tomatis, 2005), a century before Kant Baruch Spinoza (1632-1677) warned:

> *"Naturae sumus pars, quae per se absque aliis non potest concipi"* (Transl. from Latin: "We are part of Nature, and we cannot conceive of ourselves in isolation, separated from other things" (Spinoza, 1972: E IV, pr. 2; G, II, 212, 10-11).

In short, we are parts embedded within the totality of nature, imbued with a fertile passivity, conceivable only in relation to individual parts, in reciprocal accord.
On passivity and the fragility of things, Titus Lucretius Carus (98 or 94 BC-50 or 55 BC) offered words that are truly evocative and moving:

> *For the body of the earth, and the waters, and the gentle breaths of the winds, and the ardent heat – which seem to compose this entire universe – all consist of a body that is born and then dies; and of the same matter must the whole nature of the world be held to be.*
> *Indeed, things whose parts and members we see made of a body that is born and of forms that perish reveal themselves continually as subject to death, just as they are to birth. Therefore, when I see the vast members and parts of the world worn away and born anew, it is clear that heaven and earth too have had their own time of origin and will have an end* (Lucrezio, 2003: V, vv. 235-246).

Of this structural sense of finitude, the human being is a conscious part, insofar as one does not merely perish or "cease to live," but truly "dies." On this point, Heidegger's writing is particularly illuminating:

> *Death is a mode of being that Dasein assumes from the moment it exists* […] *The end of the mere living being has been defined as ceasing to live. Since Dasein too "has" its physiological death as a living being* […] *it too can cease, without this, however, signifying death in the authentic sense* […] *Whereas it will instead serve as a term to indicate the mode of being in which Dasein is toward its death* (Heidegger, 1976).

In other words, the human animal is, on the one hand, inhabited by a constitutive excess of its mode of being, desire as an expression of eternity and infinity; on the other, it recognizes itself as finite, fragile, and lacking.
A finite yet ardent part of the infinite totality that is nature, the human animal is called, in the *poverty of flesh* and the purity of its vocation, to an asymmetric relationship

with the powers of nature: to recognize nature's indifference while, at the same time, not being indifferent to it; to follow it with gratitude for having brought us into being, yet also to resist it, to act upon it by virtue of our knowledge, but without profaning it, if anything respecting it as a common home (Pievani, 2020).

In the case of that particular expression of nature's power represented by volcanic phenomena, what kind of anthropological stance, between myth, philosophy, and literature, has human knowledge produced?

The geoethical approach surpasses the Kantian vision of moral dominion: recognizing human fragility in the face of a volcano (as described by Lucretius and Heidegger) should not lead to paralysis or mere "sublime horror," but to *awareness of the limit*. To respect the volcano means accepting that we cannot dominate it technologically, adapting human settlements to geological rhythms rather than the other way around.

Moreover, while ancient *thauma* inaugurated thought, today the same sentiment can become the cornerstone of a renewed education in risk. The vertigo, repulsion, attraction, and fear that volcanic power arouses in humans should not be understood as obstacles to knowledge, but as its most authentic impulse. It is precisely from the experience of fragility and natural excess that the necessity arises to understand volcanic processes, implement safety measures, and learn the language of warning signs. Wonder, then, no longer remains a purely aesthetic or theoretical emotion: it becomes an operative pathos, capable of guiding individual and collective responsibility toward practices of monitoring, preparation, and respect for natural power.

Wonder is not an obstacle, but the condition of responsibility – the sentiment that allows us to grasp the scope of our action, without reducing nature to a mere instrument and without confining knowledge to the sterile recording of data.

3. Volcanic posturologies

Naturally, for methodological and space-related reasons, we will limit ourselves to a few anthropological stances exemplifying the relationship between humans and volcanoes, beginning with the interest that mythology has assumed even in scientific contexts (de Boer and Sanders, 2002; Grattan and Torrence, 2007; Cashman and Giordano, 2008), and moving toward the great works of philosophy and literature.

This renewed consideration arises from the awareness that local populations, over the centuries and sometimes millennia, have developed a profound relationship with natural phenomena, particularly with volcanoes. Mythological narratives do not

merely represent popular beliefs, but often constitute a form of codified knowledge, useful for understanding volcanic behaviour even from a scientific perspective (Cas et al., 2024).
Volcanism, in this sense, refers to cultural practices – including oral ones – of considerable anthropological significance:

> *Representations of volcanoes, like all those relating to extreme nature, do not concern knowledge alone, but are mythic and poetic elaborations that, as discursive constructions, reveal the religious mentalities, political models, and social imagination of a community in a given era. Volcanism evokes substantial cultural productions, often marked by a strong emotional imprint and grand expressions of the fantastic, in which individual particularities are woven into the deepest currents of collective thought. The close intertwining of reality and imagination follows the path of metaphor, which, in the case of volcanoes, is linked to a semantics of fire and subterranean power; these representations involve significant anthropological questions, often revealing the process of semiotisation through which humans construct their relationship with space, with the body, and with the social world* (Gugg, 2019).

3.1. Oral tradition and local knowledge

Oral tradition transmits fundamental information in a simplified, abstract, and personified form (Piccardi and Masse, 2007). These narratives, while not scientific in language, can contain accurate descriptions of volcanic phenomena. For example, in the case of the Poás volcano in Costa Rica, local legends speak of a spirit stirring within the crater, evoking images consistent with effusive, explosive, phreatic, or phreatomagmatic activity (Alvarado and Soto, 2008).
The legend of Poás, which tells of the sacrifice of a young woman to appease the volcano's anger, gives meaning to the presence of a crater lake, interpreted as the manifestation of the volcano's tears upon hearing the melodious song of the Rualdo, a local bird, which had renounced the magnificent colours of its plumage to save the young woman from sacrifice. The crater lake, which exists and reflects the volcano's reduced activity, is thus explained through the placated wrath of the volcano god and his tears, while the legend continues by describing the continuous sobbing, which aptly corresponds to the current activity characterized by small-volume phreatic and phreatomagmatic eruptions linked to gas release or interactions between water and magma.

3.2. Myths as tools for prediction and prevention

An emblematic case is that of Mount Pinatubo in the Philippines, whose 1991 eruption caught the scientific community by surprise. The volcano, covered in vegetation and showing no obvious signs of recent activity, was considered quiescent. However, a local legend spoke of the Bacobaco, a mythological being in the form of a turtle that took refuge in the mountain after an episode of anger (Rodolfo and Umbal, 2008). This narrative, when correctly interpreted, described the volcano's quiescent state with remarkable accuracy, highlighting the predictive value of oral traditions.

3.3. The sacralisation of territory

Legends not only describe natural phenomena, but also contribute to the sacralisation of the territory. The goddess Pele in Hawaii, for example, is associated primarily with the effusive activity of the local volcanoes. Her wrath is manifested in the burning of forests, a behaviour consistent with lava flows. This type of narrative fosters a perception of the volcano as a living and powerful entity, contributing to the designation of sacred areas and to the spontaneous limitation of access to dangerous zones (Emerson, 1915).

3.4. Implications for civil protection

The communication of volcanic risk by the scientific community often clashes with local perceptions and cultural representations of volcanic territories. Volcanic hazard maps, which divide the territory into red and yellow zones, are fundamental tools for civil protection planning, but they risk being ineffective if not contextualized within local language, beliefs, and practices. The perception of a volcano, in fact, is not univocal: for many communities, it is not only a threat but also an economic, cultural, and symbolic resource.

A significant example is the Lascar volcano, located on the border between Chile and Argentina. Despite the explosive eruption of 1993, which caused a sudden intensification of fumarolic activity and posed concrete health risks to the inhabitants, the small community of Talabre continues to celebrate the volcano as a source of life. This attitude is linked to the presence of oases, water resources, and pastures that make subsistence possible in an otherwise hostile territory. In this context, the volcano is experienced as an integral element of ecological balance and the continuity of life, not simply as a hazard to be avoided.

The dichotomy between scientific perception and local perception of the volcano highlights the need for inclusive and culturally sensitive risk communication. The mere transmission of technical data or the identification of risk zones can be ineffective – or even counterproductive – if not accompanied by cultural mediation that takes into account the history, beliefs, agricultural practices, and value systems of the communities involved. This approach requires participatory dialogue, in which risk science engages with local knowledge, recognizing that safety cannot be imposed unilaterally but must be co-constructed through mutual understanding.

Ultimately, the case of Lascar shows that volcanic risk management is not only a matter of scientific or technological tools, but also of applied geoethics: respecting communities means considering their historical, cultural, and symbolic relationship with nature, transforming risk into an opportunity for collaboration, education, and shared resilience (Peppoloni, 2023).

In this sense, fear and awe are not simply irrational residues to be corrected, but essential anthropological components of the human relationship with nature that can be effectively harnessed. The most successful risk communication strategies are those that embrace this pathos, transforming it into motivation for participation, preparedness, and the adoption of prudent behaviours. Shared narratives, drills, maps discussed with the population, and the valorisation of local memory do not merely inform: they convert deep emotions into concrete practices. Awe becomes vigilance, fear becomes attentiveness, and fascination with the volcano transforms into responsibility. In this way, civil protection assumes the role of an anthropological "care" of the territory, where risk management integrates scientific knowledge, cultural experience, and emotional sensitivity, in an approach that can be defined as geoethically responsible.

4. The Italian case: science and the question of different knowledge languages

Even in Italy, active volcanoes such as Stromboli, Etna, Ischia, and the Campi Flegrei present high levels of volcanic hazard. Yet local populations have lived for generations along their slopes, benefiting from resources such as water, fertile soil, and favourable microclimates. In its effort to promote awareness through technical tools, science must engage with communities that often distrust scientific messages, particularly when these entail restrictions.

From an epistemological perspective, the central issue remains that of language and its codes of transmission (Cashman and Giordano, 2008). Modern science must develop forms of communication that are transparent, understandable, and shareable with

local populations. The study of myths and legends, from an epistemological point of view, represents a valuable resource for understanding and managing volcanic hazards (Cashman and Cronin, 2008). Integrating scientific knowledge with traditional knowledge can improve the effectiveness of civil protection strategies and promote a more harmonious coexistence between human communities and volcanoes.
The valorisation of "mythological narratives" is not merely an exercise in anthropological curiosity; it becomes a kind of geoethical imperative. Ignoring local culture leads to the failure of risk communication. Geoethics requires that the scientist not only impose technical data and warning tools, but also integrate "expert knowledge" with "contextual knowledge." Indeed, as in the cases of Hawaii or Chile, the sacralisation of the territory functions as a spontaneous form of risk zoning that science must respect, translate, and integrate, rather than erase or trivialize.
In this regard, it is necessary to recognize that even emotional language constitutes a code for the transmission of knowledge. Science cannot evade the fact that the human relationship with volcanoes has always been filtered through intense emotions, which continue to influence risk perception and the ways people relate to natural phenomena. Truly effective communication must therefore be able to weave together technical register and emotional heritage, translating feelings into tools for approaching knowledge.
Scientific knowledge, in the spirit of the complexity of understanding, is also called to engage with the great works that philosophy and literature have dedicated to volcanic phenomena.
Below, we provide some philosophical and literary testimonies on the anthropological dialectic between humans and volcanoes, following an exemplary historical trajectory from Empedocles to Friedrich Nietzsche (1844-1900).

4.1. The death of Empedocles

Ancient sources, most likely inspired by legend, transmit the death of Empedocles of *Akragas* (modern-day Agrigento) (484/481-424/421 BCE) in tragic terms: he is said to have thrown himself into Mount Etna (Diogenes Laërtius, VIII, 67-69 = 31 A1 Diels-Kranz).

> *Regarding his death, different versions are reported. Heraclides, for example, after recounting the story of the lifeless woman, and how Empedocles had become famous for restoring her to life, adds that he was offering a sacrifice near the Pisianatte field, and some of his friends had been invited, among them Pausanias. After the celebration, the others separated and went to rest* […] *When*

> *morning came and they rose, he alone was not found. They searched for him and questioned the slaves, who claimed to know nothing; only one, however, declared that in the middle of the night he had heard a very loud voice calling Empedocles; rising, he had seen a light in the sky and a gleam of torches and nothing more* […] *Hippobotos asserts that Empedocles, having risen, set out toward Etna, and then, upon reaching the fiery crater, threw himself in and disappeared, intending to give credence to the rumor that he had become a god; subsequently, however, the truth was discovered, for one of his sandals was returned by the volcano: he had, in fact, been accustomed to wearing bronze sandals* (Diogene Laertio, VIII, 67-69 = 31 A1 Diels-Kranz: tr. it. in Reale, 2006).

Legend or not, Empedocles' leap into the jaws of Etna was not only linked to his presumption of immortality, but also closely aligned with his doctrine. The philosopher of *Akragas*, in fact, believed that nothing truly comes into being or perishes, in accordance with the permanence of being:

> *Fools. They do not trouble themselves with deep thoughts,*
> *And they expect that that which was not before should come into being,*
> *And that something should perish and be utterly destroyed* (31B11 Diels-Kranz: tr. it. in Tonelli, 2002).

And again:

> *For nothing can come into being from what is not, and it is [impossible]*
> *That what exists should be entirely destroyed, and it will [always] remain incredible*
> *Where each, in turn, finds its foundation* (31 B12 Diels-Kranz; Italian trans. in Tonelli, 2002).

In Empedocles' thought, birth and death are only the mixing and dissolution of four substances that remain eternally the same: fire, water, earth, and air – the "roots of all things" (*πάντων ριζώματα*).
The tragic death of Empedocles in Etna was the subject of Friedrich Hölderlin's (1770-1843) masterpiece: *The Death of Empedocles*, an unfinished verse tragedy written between 1797 and 1800. In Hölderlin's eyes, Empedocles rises to the status of a heroic figure, one who seeks to reconcile, tragically, spirit and nature within that Whole or that Center, expressive of human desire and long anticipated by the poetic voice:

> *Here I remain, serene, for a new hour, long ordained, is being prepared for me.*

> *No longer in image, no longer as always, in the fleeting fortune of mortals, but in death, I behold the living* (Hölderlin, 2005).

Again Hölderlin, in *The Foundation of Empedocles*, relates Empedocles' extreme act to an oppositional, binary anthropology and cosmology, between the aorganic (primordial nature, the chaotic dimension of the formless and the possible: Mecacci, 2022) and the organic:

> *At the center lies the death of the individual, that is, the moment in which the organic strips itself of its egoity, of its particular existence, now become an extreme, and the aorganic strips itself of its universality – not, as at the beginning, in an ideal mixture, but in the reality of the utmost struggle – while the particular, in its extreme, must increasingly detach from its central point, moving toward the extreme of the aorganic, and the aorganic must increasingly concentrate toward the particular* (Hölderlin, 2019).

4.2. Goethe and the fearful, amorphous mass

Johann Wolfgang von Goethe (1749-1832) wrote *Italian Journey* between 1813 and 1817 as a cultural and life testimony of the journey he undertook through our peninsula from September 1786 to June 1788 (Goethe, 2002).
Driven by a profound interest in Italian art, language, and culture, Goethe found in Italy a kind of living laboratory for his fruitful interests in the natural sciences (botany, geology, climatic phenomena). Goethe arrived in Naples with the painter Johann Heinrich Wilhelm Tischbein (1751-1829) in February 1787, remaining there until the end of March. Although Goethe was a Neptunist, believing that geological formations derived from marine sedimentation dynamics in a kind of primordial ocean, he was deeply attracted by Vesuvius, which he described, on one of the three occasions he climbed the volcano, with vividness and accuracy, particularly its lava flows.
Goethe is a thinker of metamorphosis (Donà, 2022), of a Spinozist nature, albeit without the systematic rigor, in which the parts are in continual relation to each other, in the sign of ceaseless dynamism:

> *There is in it an eternal life, an eternal becoming, a perpetual motion; yet it does not take a step forward. It transforms continuously, knowing no moment of rest. It is ignorant of stillness; it strikes with a curse upon delay. It is steadfast. Its step is measured, its exceptions rare, its laws unchanging* (Goethe, 2017).

And again, in the "Introduction" to The Metamorphosis of Plants:

> *To indicate the totality of the existence of a real being, the German language uses the word Gestalt, form; a term from which what is mobile is abstracted, and which is considered established, completed, and fixed in its characteristics – a single whole. Now, if we examine existing forms, and in particular organs, we realize that in them there is never any immobility, fixity, or completion; everything oscillates in continuous motion. For this reason, the German language appropriately uses the word Bildung, formation, to indicate both what has already been produced and what is in the process of being produced. What is already formed is immediately transformed again; and if we wish to acquire a living perception of nature, we must remain mobile and plastic, following the example that it gives us* (Goethe, 2017).

In short, everything is metamorphosis, dynamism, cognitive tension, a site of fertile experience. Regarding his initial encounter with Vesuvius, Goethe writes as follows:

> *Though with some reluctance, yet faithful to the spirit of friendship, Tischbein accompanied me today in the ascent of Vesuvius. For him, an artist of form, concerned solely with the fairest human and animal shapes, and capable even of bestowing a human character upon the formless, be it rocks or landscapes, through feeling and taste, nothing could exist more repellent than such a fearful, amorphous mass, which ceaselessly devours itself and stands as a declared enemy to every sense of beauty.* […] *Tischbein's aversion to the volcano continued to increase, as he perceived that the monster, not content with being ugly, was also becoming dangerous* (Goethe, 2002).

Vesuvius appears as a "fearful and amorphous mass," refractory to any aesthetics of form and beauty, in keeping with that anthropological stance known as "sublime horror" (Bodei, 2008). In practical terms:

> *The "natural horrible," which inspires terror through its vastness and unpredictability and threatens to daze and subjugate humankind, is not directly accessible and, still less, pleasurable. For it to be tinged with pleasure, terror must undergo a process of aestheticiation, of "poeticization." Moreover, the "natural horrible" must present itself as "spectacular," in the double sense of a striking, effective scene and of the presence of a spectator/observer who is not directly entangled in the dangers, but partakes of them from a safe distance, experiencing their effects only psychologically.*

> *Redeemed through a process of "aesthetic sublimation," the "natural horrible" is transformed into an "aesthetic horror," opening itself to the "sublime." From the convergence of two concepts apparently irreconcilable, the "horrible"/"horrid" and the "sublime", there arises the ambivalent, not to say oxymoronic, aesthetic category of "sublime horror"* (Böhmig, 2023).

Not by chance, Goethe, in referring to Vesuvius, speaks of a "*großes, geisterhebendes Schauspiel*", that is, of a vision, which, in its grandeur, moves and elevates the soul (Goethe, 1957). Goethe's Vesuvius is a *locus horridus*, from which "sublime horror" draws its sustenance: an infernal mouth or summit (*Höllengipfel*: Goethe, 1957) that produces that *thauma*, that *anguished terror* of which we have spoken.
In short, Vesuvius generates the imminence of danger, triggers a terror charged with anguish, and yet excites the mind, opening it to cognitive experiences under the sign of "sublime horror".
It seems to us noteworthy that this feeling is also present in Charles Dickens (1812-1870) himself, who, ascending Vesuvius, speaks of "mystery," "fascination," and a "thrill of interest", that is, of that specific cognitive *pathos* proper to *thauma*:

> *There is something, between the fire and the noise, that draws one's attention and urges one ever closer. We cannot resist it, and, accompanied by the chief guide, we climb up to the edge of the blazing crater, peering within and, for a moment, gazing beneath us into the hell of fire* (cit. in Conti, 2005).

The same image of Vesuvius as a "terrifying monster" is to be found in the 1786 travel diary of the Russian entrepreneur Nikita Antufiev Demidov (1656-1725), written in connection with his *grand tour* through Germany, England, France, and Italy (Tonini, 2023), as evidence of the link between the eighteenth-century Russian nobility, the culture of the *grand tour*, and Italy:

> *The higher we climbed and the nearer we drew to the mountain's summit, the more we were choked by the outpouring of an exceedingly dense and heavy grey smoke. Upon reaching the summit, we were startled by a dreadful blast, as loud as the firing of many cannons at once, and at the same moment flames and smoke were hurled forth, as from a terrifying and fearsome monster* (Demidov, 2005).

4.3. The Leopardian "Here"

Here, upon the arid back
of the formidable
destroying mount Vesuvius,
which no other cheerful tree
nor flower adorns,
you scatter
your solitary bushes all around,
fragrant broom,
content amid the deserts.

Thus begins *La ginestra or the flower of the desert* (vv. 1-7), the celebrated lyric that Giacomo Leopardi (1798-1837) composed in 1836 (published posthumously in the 1845 edition of the *Canti*, issued in Florence by Ranieri) at the Villa Ferrigni in Torre del Greco, in front of which Vesuvius loomed.
As Binni (1960) has emphasized, *La Ginestra* stands as Leopardi's most radical attempt to translate into verse his aesthetic, ethical, and philosophical experience. Vesuvius is an *arid and formidable* mountain, and it is precisely *here*, intensely *here*, that the desert of nothingness unfolds, which genius, *the flower of the desert*, brings to bloom (Severino, 1990). The "destroying Vesuvius" dominates, looming over the surrounding space as the source of the becoming of all things, a source of *anguished terror*, in an anthropological atmosphere steeped in the sense of nothingness, of the annihilation of existence. Yet genius knows how to perceive all this authentically, with the "light" (v. 81) of reason, almost taking delight in its own despair (cf. *Pensieri* 260), lucidly inhabiting the anguish of volcanic becoming: and this is why the broom, the poetic genius, is "content amid the deserts" (Severino, 1990). In the clear words of Emanuele Severino:

> *For the broom, the desert itself is not enough; its singing of it suffices. It does not say "yes" to the desert, it does not rejoice in nothingness, it is not "the pleasure of annihilation," unlike Nietzsche's Übermensch. The Übermensch rejoices in annihilation, because he is the very eternity of becoming: the eternity of becoming rejoices in the annihilation of that which it must consume in order to be an eternal flame. The broom, by contrast, is content with the desert, because the desert is what it sings – and in the song is experienced as the origin and the place of discontent* (Severino, 1990).

In short, the consolation that the broom provides lies in its lucid and profoundly desperate gaze upon the nothingness of all things: the broom, though belonging to the desert, rises above it, consoling it with its rigorous and tragic poetic vision (it is the genius that "opens the heart and rekindles" those who perceive its stance and place in the world: cf. *Pensieri* 259-262). Art, artistic genius, *the poetic broom*, consoles and rekindles enthusiasm. In the *Zibaldone*, Leopardi is paradigmatic:

> *This is the peculiar quality of works of genius: that even when they vividly represent the nothingness of things, even when they clearly demonstrate and make one feel the inevitable unhappiness of life, even when they express the most terrible despairs, they nevertheless serve, for a great soul in a state of extreme dejection, disillusion, nullity, boredom, and discouragement with life, or in the harshest and most deadly misfortunes* […]*, as a source of consolation. They rekindle enthusiasm, and, by treating and representing nothing but death, they restore, at least momentarily, the life that had been lost* (Leopardi, 1930-32).

Vesuvius, as we can see, becomes in Leopardi's cantica both figure and motif of a highly refined practice of tragic knowledge; just as the "here" asserts itself not only as a topological sign but as a cosmological and anthropological one, a shared experience of the annihilation of worlds, of the multiple worlds that mark our uncertain existence.
All is body, matter, nature, in the sign of a restless materialism, a ceaseless kinetic of bodies and worlds (Polizzi, 2023), a poietic thought (Sirimarco, 2022; Prete, 2006) that recognizes in genius the one who sings every "destroying Vesuvius," every production and destruction of things, every annihilation of beings:

> […] *a perpetual circuit of production and destruction, both mutually connected in such a way that each continually serves the other, and the preservation of the world; for if either of them were ever to cease, the world would equally fall into dissolution* (*Dialogo della Natura e di un Islandese*, 1824).

On the dialectic between preservation and destruction/annihilation, we leave the final word to Giacomo Leopardi:

> *Thus nature, existence, in no way has for its end the pleasure or the happiness of animals; rather, on the contrary; yet this does not prevent every animal from having, by its own nature, for its necessary, perpetual, and sole end its own pleasure and its own happiness, and likewise each species taken together,*

and thus the entirety of living beings […]. *Given also, which is entirely false, that the animal's own preservation is the object and necessary end of its nature, certainly it is not so of universal nature, nor of that of other animals with respect to each one of them* […]. *Indeed, the end of universal nature is the life of the universe, which equally consists in the production, preservation, and destruction of its components; and thus the destruction of any animal enters into the end of said nature at least as much as its preservation, and even far more than its preservation, insofar as it is evident that the things conspiring toward the destruction of each animal vastly outnumber those favouring its preservation.* […]. *The span of preservation, that is, the duration of an animal, is nothing compared to the eternity of its non-being, that is, the consequence and, so to speak, duration of its destruction* (*Zibaldone*, 5-6 April 1825).

4.4. The Verga *bulletin*

As is well known, Etna (*our old Mongibello*) forms the backdrop for some of Giovanni Verga's (1840-1922) most evocative works, such as *Storia di una capinera*, a novel published in 1871, and *Agonia di un villaggio*, a short story included in the collection *Vagabondaggio*, in which the author describes the lava flow that struck the town of Nicolosi (eastern Sicily) in 1886.
Within the context of a philosophy of *destiny-bound* nature, harsh, severe, cyclical, visceral, where human dignity strives to organize itself patiently around its lucid finitude in a struggle for life, Etna assumes, at least in the excerpts we present, an ambivalent character.
In *Storia di una capinera*, among villages that "climb the slopes of mountains, which are vast yet seem small beside the majesty of our old Mongibello", in the unfolding of tragic existences, Etna, in contrast with the protagonist's harrowing story, seems to embody a flourishing and harmonious nature:

How beautiful the countryside is, my Marianna! If only you were here, with me! If only you could see these mountains, by moonlight or at sunrise, and the long shadows of the forests, the blue of the sky, the green of the vineyards hidden in the valleys and surrounding the little houses, and that vast cerulean sea, sparkling down there, far, far away, and all those villages climbing up the mountain slopes, which are vast yet seem tiny beside the majesty of our old Mongibello! If only you could see how beautiful our Etna is up close! From the convent's belvedere, it looked like a great isolated mountain, its summit always covered with snow; now I count the peaks of all these little hills that form its crown, I trace its deep

> *valleys, its wooded slopes, its proud summit on which the snow, spreading down the ravines, traces immense brown furrows* (Verga, 2015).

But Etna is also blind nature, hostile to humans, as in *Nedda* (1874), where the protagonist, a young olive-gatherer, tears her foot on a shard of lava, "sharp as a razor." Most of all, in the substantial passage from *Agonia di un villaggio*, where Verga describes the full ferocity with which Etna pours itself over the countryside of Nicolosi:

> *"Bulletin of the eruption! Fire at Nicolosi!" The crowd rushed in from the surrounding areas, on foot, on horseback, in carriages, by whatever means they could. Along the ascent, through the green of the vineyards, a dense cloud of dust traced the zigzag of the road. At every step, carts came down from the threatened village, loaded with household goods, provisions, timber…* […].
> *And with the goods, on the carts, on foot, moved men and women, silent, carrying sleepy children in their arms, their faces flushed from heat and anxiety. By the farmhouses, in the hamlets, along the road, the inhabitants leaned out to see, hands on their stomachs; an old woman here and there affixed a miraculous image to a doorframe or to the gate of a garden; and on the wide-open doors of little churches, the statue of the patron saint gleamed under its canopy, like a terrified ghost, with extinguished candles and paper flowers before it* […].
> *They walked on black sand, between two rows of ruined, irregular houses, doors and windows torn off. People were still busy removing their belongings. From the balcony of a new house they were lowering, shouting – Make way! – a monumental wardrobe* […]*; here and there, at doors without a door, one could see some poor soul turning his back on the bare little rooms, waiting, hands idle, face long, in silence, as in the antechamber of a dying man* […].
> *Up there, from the bell tower, over the chatter, the clamour, the roar of the volcano, the bell rang for the procession, without ceasing for a moment.*
> *To the north, toward Etna, the main road stretched between two rows of tree-like broom shrubs, swarming with curious onlookers, laughing, shouting, calling to one another from afar, and the muffled cries of women swaying on the unstable mules' packs, and the voices of those selling soda, beer, eggs, and lemons under the makeshift stalls* […].
> *A few steps away, the flowering broom still stirred in the evening breeze; women clung to the arm of their traveling companions with a delightful shiver; others wandered through the vineyards, along the line of the threatening current, climbing over low walls, leaping over ditches, women holding their skirts in their hands, with an endless sway of veils and parasols, while twilight died in the west,*

and the distant sea disappeared, at the same moment that the immense river of lava seemed to ignite on the dark horizon.
From the little town lost in the darkness, the sound of bells still reached them, and a confused, lamenting murmur, a swarm of approaching lights, like traveling fireflies. Then, from the darkness of the street, emerged a strange procession: men and women barefoot, beating their chests, chanting in a low voice, with a persistent, mournful note of which nothing could be heard except: "Mercy! mercy!..." (Verga, 2023).

Here emerges a climate more of dignified acceptance of destiny than of despair, expressive of "a simple and manly sadness" (Momigliano, 1965).
The image of the "poor devil turning his back on the bare little rooms, waiting with hands idle and face drawn, in silence" seems to emerge as a paradigmatic anthropological posture of dignified acceptance of human finitude in the face of nature's overwhelming power.
In these passages, one can appreciate the absence of geoethical awareness, contrasted with the dignified and "manly sadness" of the locals. Observation of the volcano should not be an aesthetic consumption of others' catastrophe (the "thrill of interest" described by Dickens), but an educational opportunity. The behaviour of the tourists depicted by Verga, who enjoy the spectacle while the village perishes, represents the antithesis of a geoethical approach, which instead requires empathy and understanding of socio-environmental dynamics. It recalls, rather, the macabre ritual of dark tourism or horror tourism (Erfurt-Cooper et al., 2015), lacking the post-disaster educational aspects (Zhang, 2021) and the affective socio-spatial encounter (Martini and Buda, 2020).
Even some Baroque seventeenth-century *disaster poems* (Cecere et al., 2018; Perrone, 2021) emphasized the destructive force of nature, surpassing every human *conatus*. It is enough to recall a few striking lines by Girolamo Fontanella (1612?-1644?) concerning the eruption of Vesuvius in 1631:

Rising into the thundering air
after so many years to behold the light,
a furious Giant,
rebellious to heaven, victorious leader,
and darkly he lifts, clouded and stormy, around
a mountain upon the mountain, a peak upon the peaks.
He rends the maternal flank,
too narrow to contain his fury;
and scorning Hell,

he makes a fissure to exhale his heat,
and sends forth from his bursting veins
sulfurous stones and blazing sands.
He, proud and trembling,
ancient author of reckless deeds,
rides upon the horrid whirlwinds
to fashion for himself the throne where Jove reigns.
And with the very arms with which he was quelled and driven,
he wishes to appear more conqueror than conquered
(Fontanella, 1632).

Returning to Verga, a nature, that is also a "semantic field of death" (Bombara, 2023), emptied of forms and colors, devitalized in the landscapes it unfolds, and over which *Mongibello* always presides:

And it seems as if you could touch it with your hands – like the rich earth that smokes, there, everywhere, all around the mountains that enclose it, from Agnone to Mongibello hooded in snow – stagnant in the plain, like the heavy July heat. The fiery sun is born and dies there, and the pale moon, and the Puddara, seeming to sail across a steaming sea, and the birds and the white daisies of spring, and the scorched summer, and in long black lines the ducks pass through the autumn haze, and the river gleams as if made of metal, between its wide and abandoned banks, white, jagged, scattered with pebbles; and in the distance the lake of Lentini, like a pond, with flat shores, without a boat, without a tree on the bank, smooth and motionless (Verga, 2012).

4.5. Volcanic Nietzsche

A philosopher of the body and its manifold kinetics, Nietzsche catapulted thought into the very bowels of the world, renewing, against all ascetic or metaphysical practices, the dialectic between thought and life.
Nietzsche is a thinker of the plurality of differences, of the countless powers of a metamorphic and ever-moving life, as well as of new productions of meaning, of new values capable of asserting themselves beyond any metaphysical distinction between being and appearance, beyond every myth of foundation (Vattimo, 1974; Deleuze, 2002); yet he is also a thinker of altitudes (Bonesio, 1993; Resta, 2000):

Whoever can breathe the air of my writings knows that it is mountain air, strong air. One must be born to breathe that air, otherwise one runs the not small risk

> *of growing cold up there. The ice is near, the solitude immense – but what peace illuminates things! How freely one breathes! How much of the world we feel beneath us! – Philosophy, as I have understood and lived it until now, is voluntary life among ice and heights – a search for all that in existence is foreign and problematic, for all that has hitherto been proscribed by morality* (Nietzsche, 1986).

And again:

> *As he climbed the mountain, Zarathustra thought, walking, of the many solitary wanderings he had undertaken since his youth, and of the mountains, ridges, and peaks he had already ascended. "I am a wayfarer who climbs the mountains," he said to his heart, "I do not love the plains, and it seems I cannot remain in them for long.*
> *And whatever destinies and experiences I am fated to live through – there will always be wandering and climbing among the mountains: ultimately, one lives only with oneself"* (Nietzsche, 1968).

A thought, the Nietzschean one, that *leaps*, *rises*, *dances*:

> *We are not among those who can think only amidst books, under the jolt of books – it is our firm habit to think in the open air, walking, leaping, climbing, dancing, preferably on solitary mountains or along the seashore, where the paths themselves become contemplative. Our first questions of value, regarding books, men, and music, are of this kind: "Is this one capable of walking? And even more, of dancing?"* (Nietzsche, 1965).

Zarathustra-Nietzsche is a wayfarer who ascends, refractory to the plains; he is "the man of peaks and glaciers, of hard rock, with a sure-footed stride" (Resta, 2024). Not by chance, Zarathustra and the eternal return are born in Sils-Maria, in the Engadine (Switzerland), far from the *idiocy of the lowlands*:

> *At last, I am in Sils-Maria! At last a return to reason! In the meantime, in fact, I found myself in truly absurd situations (it felt as if I were among cows); but that I remained so long in these lowlands, in these stables, was the greatest idiocy. Whoever needs to distract themselves, as we sometimes need to, by having a good laugh at wicked individuals and books, it suffices that one goes somewhere that is not Basel* (Nietzsche, 1976: Letter to Heinrich Köselitz, July 25, 1884).

To plunge into the depths of the world, to sink into existence, to pierce the surface, only then to rise again, to proceed *upward*:

> *My soul,*
> *with its greedy tongue has already tasted*
> *all things, good and bad; it has plunged*
> *into every depth below.*
> *But always like cork,*
> *it always swims upward again,*
> *whirling and playing, like oil upon dark seas*
> (Nietzsche, 1970).

The volcano (Stromboli, even though there are no direct compelling references) in *Zarathustra* is configured as one of these altitudes of thought. The passage, in this particularly effective translation, is truly striking:

> *There is an island in the sea, not far from the blessed island of Zarathustra, on which a volcano smokes constantly; the people say of it (and especially the little women of the people) that it is placed like a boulder of rock before the gates of Hell; yet through the volcano descends a narrow path that leads to that gate of the underworld.*
> *Now, at the time when Zarathustra was dwelling on the blessed island, it happened that a ship dropped anchor before the island where the smoking volcano rises; and the crew went ashore to hunt rabbits.*
> *However, toward midday, when the captain and his men had gathered together again, suddenly they saw a man coming down from the air toward them, and a voice spoke clearly: "It is time! There is no more time to lose!" But when that figure came near them (though it quickly flew away again, like a shadow, in the direction of the volcano), they recognized with fright that it was Zarathustra; for they had all seen him before, except the captain, and loved him, as the people love: sharing equally love and fear, so that both are united together.*
> *"Look at that!" said the old helmsman. "Here is Zarathustra going down to hell!"*
> *At the same time that these sailors had landed on the island, a rumour spread that Zarathustra had disappeared, and when they questioned his friends, they said he had gone aboard a ship at night, without saying where he intended to go. Thus, arose great unease; but after three days, the sailors' story added to this unease, and then the people said that the devil had come to take Zarathustra. His disciples did laugh at these tales; and one of them even said: "I rather believe it was Zarathustra who came to fetch the devil." Yet deep in their hearts they*

> *were all filled with anxiety and longing; so that their joy was great when after five days Zarathustra appeared again among them…* (Nietzsche, 1972a).

It is interesting to note how Nietzsche's passage is strikingly similar, almost to the point of plagiarism, to a vision reported by the German psychologist and physician Justinus Kerner (1786-1862) in the *Die Seherin von Prevorst* (1833: Scarpelli, 1997). The close connection between the two passages was first noted by Jung (1905). In essence, it is recounted that, in 1686, some officers and a passenger of an English vessel:

> […] *they landed on the coast of the island of Mount Stromboli to hunt rabbits.* […] *To their indescribable astonishment, they saw two men appear, hovering in the air, who approached them very swiftly;* […] *they barely brushed past them and then descended, to the utmost terror of all who were watching, into the flames of the chasm of the fearsome volcano Mount Stromboli* (Kerner, 1833).

As further confirmation of the striking similarity between the two passages, we recall a footnote by Kerner, who, within the overall allegorical context, refers to Stromboli as the gateway to Hades (cf. Zarathustra descending into Hell "to fetch the devil": Scarpelli, 1997).
Setting aside all historical and philological discussion, what remains is the full fecund symbolism of the volcano, inhabited by an abyssal thought.
Even in the face of terror, the anguish of suffering, and annihilation, *Dionysian art,* following the *fil rouge* that links Nietzsche to Leopardi (Giacomelli, 2019), confronts life's inherent contradictions head-on, without any pedagogy of suffering, without sterile sentimental rhetoric:

> *To say "yes" to life even in its darkest and harshest problems, the joyful will to live, in the sacrifice of its highest types, of its inexhaustibility – this I have called Dionysian* […] *Not to free oneself from terror and compassion, not to purify oneself from a dangerous passion through a vehement discharge of it* […]: *but to be ourselves, beyond terror and compassion, the eternal pleasure of becoming – that pleasure which also includes within itself the pleasure of annihilation* (Nietzsche, 1972b).

5. Conclusion

Science presents itself as a particular expression of *thauma*, of wonder, always coupled with a profound *pathos* (Corbellini, 2013). In our case, this scientific wonder

takes the form of volcanology, an *observational-quantitative translation* of phenomena, capable of reducing the complexity of the relationship between humans and volcanoes to observation, calculation, and measurement (Sigurdsson, 2015).
Yet, from an epistemological standpoint, volcanology itself, even in its structured observations, measurements, and calculations, cannot disregard the rich cultural heritage, mythological, philosophical, and literary, that has always inhabited the *being in the world* of human beings. In particular, volcanology cannot escape the response that the human gaze, always steeped, in the inexhaustible chain of signifiers, in beliefs, practices, and cultural experiences, gives to the prompts of science, especially with regard to the overwhelming power of nature.
The complexity inherent to knowledge demands this, in which even the system of sciences itself configures as a *polycentric network*, marked by different and complementary hermeneutics, and for this reason fertile:

> *A recomposition of knowledge that seeks, in some way, to continue defining itself as unified is achievable only through continuous operations of translation and interpretation between perspectives that are different precisely because they concern different "objects." And these operations of translation and interpretation generate a circularity of concepts and theories* (Ceruti, 2018).

For this reason, wonder and fear, far from being archaic leftovers of mythical thought, represent current and indispensable anthropological resources, even for science. Volcanology, by engaging with these feelings, can transform them into educational and operational levers: public information campaigns, attention and evacuation protocols, participatory observation, awareness of natural signals. In this way, the pathos that once generated myths, philosophies, and literatures becomes today a tool for responsibly inhabiting the power of volcanoes. Turning emotions into action ultimately means recognizing our fragility without being overwhelmed by it, embracing the force of nature without succumbing to its threat, and transforming wonder into shared care for our common home.
There is another important point: the geoethical dilemma of coexistence. Geoethics does not advocate abandoning volcanic areas, even if they are risky, but promotes a "conscious coexistence." The volcano is not an enemy, as portrayed in the warlike or punitive visions of myths, but an indifferent planetary system that provides resources (energy, soil, tourism). Ethics lies in managing this resource without exposing the population to unacceptable risks due to profit or ignorance.
In essence, if volcanology provides the "grammar" and "syntax" of the volcano (measurements, data, forecasts), the human sciences and geoethics provide the "semantics" (meaning, value, behaviour). Without geoethical semantics, scientific

grammar risks remaining a language incomprehensible to, or ignored by, the populations at risk.

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