We are living in an age when we are both able to change nature and more at its mercy than ever — as the Icelandic volcano has proved.

Many of those who have a fear of flying are haunted by a particular thought: that is, how many parts of such a complicated machine as a modern plane have to function smoothly in order for it to stay in the air? One small lever breaks somewhere, and the plane may spiral downwards . . . When you start to think how many things could go wrong, you cannot help but panic.

The people of Europe have experienced something similar in the past few weeks. That a cloud from a minor volcanic eruption in Iceland - a small disturbance in the complex mechanism of life on earth - can bring to a standstill the air traffic over almost an entire continent is a reminder of how humankind, for all its power to transform nature, remains just another living species on the planet.

The serious socio-economic impact of such a minor outburst is a result of our technological development (in this case, air travel); a century ago, such an eruption would have passed almost unnoticed. Technological development has made us more independent from nature and, at the same time, on a different level, more dependent on nature's whims. Decades ago, when a man first stepped on the surface of the moon, his now-legendary words were "That's one small step for [a] man; one giant leap for mankind". With the eruption in Iceland, it was more "a small step back for nature, but a giant step back for humankind".

Our growing freedom from and control over nature - indeed our survival - rely on a series of stable natural parameters that we tend to take for granted: in temperature, for example, the composition of the air, water and energy supply, and so on. We can "do what we want" only so long as we remain marginal enough. The limits to our freedom become palpable with ecological disturbances, as our ability to transform nature destabilises the basic geological conditions of life on earth.

That humankind is becoming a geological agent on earth indicates the beginning of a geological era that some scientists have named the "Anthropocene": the time of man. Certainly, there are good reasons to surmise that the main cause of the unexpected strength of the devastating earthquake in China in 2008 (if not the earthquake itself) was the construction of the enormous Zipingpu Dam in the region. This created large new artificial reservoirs, and the additional pressure on the surface seems to have influenced the balance of the underground cliffs, thus contributing to the earthquake.

There is, however, something deceptively reassuring in this readiness to assume responsibility for the threats to our environment. We like to feel guilty because that suggests everything
depends on us - if we pull the strings of the catastrophe, then we can save ourselves simply by changing our lives. The ongoing volcanic outburst is a reminder that our ecological troubles cannot be reduced to our hubris, to our disturbing the balanced order of earth.

Nature is chaotic and prone to wild, unpredictable and meaningless disasters, and we are exposed to its merciless whims - there is no Mother Earth watching over us. Indeed, in the case of a volcano, the danger comes from inside the bowels of the earth; from beneath our feet, not from outer space. We have nowhere to withdraw.

**Science is helpless**

In the media, the volcanic ash has sometimes been treated as a natural catastrophe, sometimes as a meteorological phenomenon; sometimes it has been said to concern the economy (that is, the financial loss of the airline companies or of those who rely on air transport, such as the flower growers in Kenya). At other times the focus has been on the disruption of social life and the plight of passengers stranded abroad for days, even weeks. The main argument in favour of the closure of airspace over Europe was the danger that the volcanic dust posed to planes' engines; the main argument against was the financial loss this closure entailed for the airlines and the wider economy.

The confusion of natural and cultural or economic concerns in the arguments over the prohibition of flights raised the following suspicion: how come the scientific evidence began to suggest it was safe to fly over most of Europe just when the pressure from the airlines became most intense? Is this not further proof that capital is the only real thing in our lives, with even scientific judgements having to bend to its will?

The problem is that scientists are supposed to know, but they do not. Science is helpless and covers up this helplessness with a deceptive screen of expert assurance. We rely more and more on experts, even in the most intimate domains of our experience (sexuality and religion). As a result, the field of scientific knowledge is transformed into a terrain of conflicting "expert opinions".

Most of the threats we face today are not external (or "natural"), but generated by human activity shaped by science (the ecological consequences of our industry, say, or the psychic consequences of uncontrolled genetic engineering), so that the sciences are simultaneously the source of such threats, our best hope of understanding those threats, and the means through which we may find a way of coping with them.

Even if we blame scientific-technological civilisation for global warming, we need the same science not only to define the scope of the threat, but also, often, to perceive it in the first place. The "ozone hole", for example, can be "seen" in the sky only by scientists. That line from Wagner's *Parsifal* - "Die Wunde schliest der Speer nur, der Sie schlug" ("The wound can only be healed by the spear that made it") - acquires a new relevance here.

How much can we "safely" pollute our environment? How many fossil fuels can we burn? How much of a poisonous substance does not threaten our health? That our knowledge has limitations does not mean we shouldn't exaggerate the ecological threat. On the contrary, we should be even
more careful about it, given that the situation is extremely unpredictable. The recent uncertainties about global warming signal not that things are not too serious, but that they are even more chaotic than we thought, and that natural and social factors are inextricably linked.

Either we take the threat of ecological catastrophe seriously and decide today to do things that, if the catastrophe does not occur, will appear ridiculous, or we do nothing and risk losing everything if the catastrophe does take place. The worst response would be to apply a limited range of measures - in that case, we will fail whatever happens.

**Unknown knowns**

When it comes to the risk of ecological catastrophe, we are dealing with "unknown unknowns", to use the terms of the Rumsfeldian theory of knowledge. Donald Rumsfeld set out this theory in a bit of amateur philosophising in February 2002, when he was still George W Bush's defence secretary. He said:

There are known knowns; there are things we know we know. We also know there are known unknowns; that is to say we know there are some things we do not know. But there are also unknown unknowns - the ones we don't know we don't know.

What Rumsfeld forgot to add was the crucial fourth term: the "unknown knowns", things we don't know that we know - which is the Freudian unconscious, the "knowledge which doesn't know itself", as Lacan put it. To the assertion that the main dangers in the Iraq war were the "unknown unknowns" - the threats that we did not even suspect existed - we should reply that the main dangers are, on the contrary, the "unknown knowns", the disavowed beliefs and suppositions to which we are not even aware we adhere.

In the case of ecology, these disavowed beliefs and suppositions are the ones that prevent people from believing in the possibility of catastrophe, and they combine with the "unknown unknowns".

Humankind should get ready to live in a more nomadic way: local or global changes in environment may demand unprecedented large-scale social transformations. Let's say that a huge volcanic eruption makes the whole of Iceland uninhabitable: where will the people of Iceland move? Under what conditions? Should they be given a piece of land, or just dispersed around the world? What if northern Siberia becomes more inhabitable and appropriate for agriculture, while great swaths of sub-Saharan Africa become too dry for a large population to live there - how will the exchange of population be organised? When similar things happened in the past, the social changes occurred in a wild, spontaneous way, with violence and destruction. Such a prospect is catastrophic in a world in which many nations have access to weapons of mass destruction.

One thing is clear: national sovereignty will have to be redefined and new levels of global co-operation invented. And what about the immense changes to economies and consumption levels demanded and brought about by new weather patterns or shortages of water and energy sources? How will such changes be decided and executed?
It is instructive, here, to return to the four elements of what the French Marxist philosopher Alain Badiou calls the "eternal idea" of revolutionary politics. What is demanded, first, is strict egalitarian justice: worldwide norms of per capita energy consumption should be imposed, stopping developed nations from poisoning the environment at the present rate while blaming developing countries, from Brazil to China, for ruining our shared environment.

**Terror firmer**

Second, terror: the ruthless punishment of all those who violate the imposed protective measures, including severe limitations of liberal "freedoms" and the technological control of prospective lawbreakers. Third, voluntarism: the only way to confront the threat of ecological catastrophe is by means of collective decision-making that will arrest the "spontaneous" logic of capitalist development (Walter Benjamin, in his essay "On the Concept of History", pointed out that the task of a revolution is to "stop the train" of history that runs towards the precipice of global catastrophe - an insight that has gained new weight with the prospect of ecological catastrophe).

Last but not least, trust in the people: the wager that the large majority of the people support these severe measures, see them as their own and are ready to participate in their enforcement. We should not be afraid to encourage, as a combination of terror and trust in the people, the resurgence of an important figure in all egalitarian-revolutionary terror - the "informer" who denounces culprits to the authorities. (In the case of the Enron scandal, *Time* magazine was right to celebrate the insiders who tipped off the financial authorities as true public heroes.)

Once upon a time, we called this communism.