

Catastrophe as a philosophical issue
Preface to Special Issue on “Philosophy of Catastrophe” of *Tetsugaku*

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What would the world look like for a person born at the turn of the century? “The End of History”, as it was proclaimed by Francis Fukuyama to commemorate the close of the cold war, did not bring the world’s peaceful reconciliation with itself but opened a period of constant disaster of every variety, be it natural, industrial, technological, political, economic, ecological, and so on: from the September 11th attacks, the 2003 outbreak of SARS (COV-1) in Asia, the global spread of H5N1 avian influenza in 2004, the Sumatra-Andaman earthquake and tsunami in 2005, the 2008 bankruptcy of Lehman Brothers, the huge earthquakes and tsunamis in Haiti in 2010 and in the northern-eastern part of Japan in 2011, the latter of which triggered the nuclear accident at the Fukushima Daiichi Nuclear Power Station, a recurrence of the refugee crisis in the 2010s, the pandemic of COVID-19, which has still yet to come to an end, to the intimidating effects of the climate change visible regularly everywhere in the world. The concurrence of all these events seems to indicate that catastrophe is an ongoing process and not a disastrous upheaval. At the very least, “Catastrophe” is no longer an object of speculative concern, one concerning the apocalyptic end of the world, but has come to be evinced in the events that we witness in our ordinary lives and on a worldwide scale. The frequent release of movies thematizing all sorts of disasters, catastrophes, and apocalyptic ends of the world expresses our common concern, as well as some need for catharsis in the face of these menaces.

Needless to say, what we call disaster or catastrophe has been studied as a scientific or academic concern. While interest in these themes existed previously—especially in social sciences¹— it is from the 2000s that the question of catastrophe has gained broader attention and from the varied perspectives of history, sociology,

¹ See for example E. Quarantelli, *Disasters. Theories and researches*, 1978; M. Douglas and A. Wildavsky, *Risk and Culture*. University of California Press, 1983; M. Douglas, *Risk and Blame. Essays in Cultural Theory*, Routledge, 1992; E. Quarantelli (ed.), *What is a Disaster? Perspectives on the questions*, Routledge, 1998. In these cases, attention is paid more to the notion of disaster or risk than to that of catastrophe (in the sense of doom).

anthropology, geology and cultural theory.² This has been true for philosophy as well.³ By following important works on this topic, it is possible to recapitulate the discussions around this topic, as well as to reconsider what kind of philosophical reflections are possible on these matters and how we can, if not warn or prevent, at least understand what is called ‘catastrophe’. For even if catastrophe is said to be an event that occurs beyond any predictive understanding, our way of understanding has been shaped by the knowledge and judgments accumulated during our experiences of various catastrophic events. In this introductory essay, we would like to trace some important arguments on this topic.

In ancient times, concerns about catastrophes lay in a religious order. Apocalyptic anxieties were shared by most religions, including Judaism, Zoroastrianism, Christianity, and Islam, in the form of millennialism, eschatology, or revolutionary movements both political and intellectual.⁴ In the middle age,⁵ in

² Though not exhaustive, we can cite several interesting works: F Walter, *Catastrophes. Une histoire culturelle XVI^e-XXI^e siècle*, Seuil, 2008; N Bostrom and Milan M. Cirkovic, *Global Catastrophic Risk*, Oxford University Press, 2008; L. Buchet et al. (dir.), *Vers une anthropologie des catastrophes*, Éditions APDCA/INED, 2009 ; M.-H. Huet, *The Culture of Disaster*, The University of Chicago Press, 2012; Ph. Bornet et al. (dir.), *La fin du monde. Analyses plurielles d'un motifs religieux, scientifique et culturel*, Labor et Fides, 2012 ; J.-B. Fressoz, *L'Apocalypse joyeuse. Une histoire du risque technologique*, Seuil, 2012. A. Dauphiné et D. Provitolo, *Risques et catastrophes. Observer, spatialiser, comprendre, gérer*, Armand Colin, 2013. Y. Moreau, *Vivre avec les catastrophes*, PUF, 2017. E. Horn, *Future as Catastrophe. Imaging Disaster in the Modern Age*, Columbia University Press, 2018; C. Meiner, K. Veel (eds.), *The Cultural Life of Catastrophes and Crises*, Walter de Gruyter, 2012; C. Coquio, J.-P. Engélibert, R. Guidée, *L'apocalypse : une imagination politique (XIV^e-XXI^e siècles)*, Presses Universitaires de Rennes, 2018 ; N. Ferguson, *Doom. The Politics of Catastrophe*, Penguin Press, 2021.

³ In particular, philosophical concern about catastrophe is vivid in France. Besides the works on Jean-Pierre Dupuy that we will mention later, see F. Neyrat, *Biopolitique des catastrophes*, Éditions MF, 2008; I. Stengers, *Au temps des catastrophes. Résister à la barbarie qui vient*, La découverte, 2009; P. Zaoui, *La traversée des catastrophes. Philosophie pour le meilleur et pour le pire*, Seuil, 2010; R. Debray, *Du bon usage des catastrophes*, Gallimard, 2011; M. Foessel, *Après la fin du monde. Critique de la raison apocalyptique*, Seuil, 2012; J.-L. Nancy, *L'équivalence des catastrophes (après Fukushima)*, Galilée, 2012.

⁴ Cf. A. Amanat & M. T. Bernhardsson, *Imaging the end. Visions of apocalypse from the Ancient Middle East to Modern America*, I. B. Tauris, 2002; E. Aubin-Boltanski et C. Gauthier, *Penser la fin du monde*, CNRS, 2014.

⁵ R. K. Emmerson and B. McGinn, *The Apocalypse in the Middle Ages*, Cornell University, 1992; J.-P. Leguay, *Les catastrophes au Moyen-Âge*, Gisserot, 2005; T. Labbé, *Les catastrophes naturelles au moyen âge*, CNRS, 2017.

particular, in Europe, natural disasters like deluges, thunderbolts, or even the appearance of a comet were generally understood as signs of divine punishment.

It was certainly the Lisbon earthquake in 1755 that provoked, for the first time, philosophical discussion about catastrophe, while we can find around it political, religious, scientific, and even mediatic meanings as well.⁶ The “Poem on the Lisbon Disaster”,⁷ which Voltaire composed within weeks after the event, contested the Leibnizian (or Popian) idea of optimism that seems to justify, from the point of view of Providence, any lamentable sorrow imposed on innocent people. This claim prompted not only a satirical novel *Candide*, in which the author again ridicules metaphysical or religious comprehension of disasters, but also triggered a series of philosophical reflections on what is catastrophe.

The first important reaction came from Jean-Jacques Rousseau, soon after the publication of Voltaire’s poem. He asks Voltaire to consider the fact “that nature did not construct twenty thousand houses of six to seven stories there, and that if the inhabitants of this great city had been more equally spread out and more lightly lodged, the damage would have been much less, and perhaps of no account”.⁸ With this consideration, he made a decisive modification of the conception of the catastrophe. This thought does not simply turn the attribution of causes away from Nature or the will of God; any disaster that seems to belong to the realm of nature cannot be understood as such without taking into account the human interventions that contribute to its consequences: it is not only nature but also human society that makes a disaster catastrophic.

The Lisbon earthquake also drew the attention of the young Kant, who published a trio of natural-philosophical essays on the earthquake in order to understand in a scientific manner the mechanism of such a disastrous event.⁹ We can

⁶ On 2005, the 250th anniversary of the Lisbon earthquake, important works were published to explain its multiple aspects. Cf. *Lumières*, no. 6, « Lisbonne 1755 : un tremblement de terre et de ciel », 2005; T. E. D. Braun and J. B. Radner, *The Lisbon earthquake of 1755. Representations and reactions*, SVEC, vol. 2, 2005 ; J.-P. Poirier, *Le tremblement de terre de Lisbonne*, Odile Jacob, 2005 ; G. Quenet, *Les tremblements de terre aux XVII^e et XVIII^e siècles. La naissance d'un risque*, Seyssel, Champ Vallon, 2005.

⁷ Voltaire, « Poème sur le désastre de Lisbonne », in *Œuvres complètes*, t. 45A, Oxford Foundation, 1968.

⁸ Rousseau to Voltaire, « Lettre à Voltaire sur la Providence », 18 August 1756, in *Correspondance complète*, Leigh (éd.), vol. 4, 1967.

⁹ “Von den Ursachen der Erderschütterungen bei Gelegenheit des Unglücks”, “Geschichte und Naturbeschreibung der merkwürdigsten Vorfälle des Erdbebens”, “Immanuel Kants

add that the Lisbon earthquake also helped him develop his idea of the sublime, the experience that indicates the limit of human capacities.

In any case, what is crucial to these debates on the catastrophe was that, from then on, the question started to be posed in a different manner. It is no longer a matter of knowing whether catastrophe is part of the inevitable course of Nature or Providence, but whether it can be understood within the limits of human comprehension. The metaphysical questions around contingency and necessity, causality and prediction, and so on, were to be reconsidered in this perspective; the contributions of Pascal or Leibniz to the theory of probability, as well as to the development of the idea of statistics, prepared a way for the modern attempt to “tame” chances and accidents.¹⁰ According to Judith Shklar, the Lisbon earthquake constituted thus one of the “birthdays” of the modern age.¹¹

At the beginning of the modern age, Kant spoke again of the “End of all Things”, but the question was no longer about religious or metaphysical speculation on an apocalyptic end but the possibility of moral progress for humans as finite existence.¹² Political or industrial revolutions and developments in science and technology appeared to give a prophetic vision of building a safer and happier society. Although there existed a rare author who was able to foresee “the end of the world by science” and technology,¹³ we might say that disastrous accidents were not considered to be catastrophic upheavals but as moments to be dialectically incorporated into a process of progress that heads toward further development.

We may point out that, nevertheless, there appeared a new face of disaster, namely as something that, while having its origins in the course of human activities, generates effects largely exceeding the human reach and that becomes an unpredictable and uncontrollable phenomenon. The appearance of industrial disasters has thus required not only the implementation of political and legal measures capable of managing them but also a theoretical transformation of notions such as responsibility or risk,¹⁴ which lead to the further development of assurance theory and risk governance system for the sake of the “Golden Age of Security” (Stefan

fortgesetzte Betrachtung der seit einiger Zeit wahrgenommenen Erderschütterungen”, in *Gesammelte Schriften*, vol. 1, G. Reimer, 1910.

¹⁰ Cf. I. Hacking, *The Taming of Chance*, Cambridge University Press, 1990.

¹¹ J. Shklar, *The Faces of Injustice*, Yale UP, New Haven/London, 1990.

¹² Kant, « Das Ende aller Dinge », 1794 (AA XXIII)

¹³ Cf. E. Huzar, *La fin du monde par la science* [1855], Éditions ERE, 2008.

¹⁴ Cf. F. Ewald, *L'État providence*, Grasset, 1986.

Zweig).

However, the project of Enlightenment, initiated in the 18th century and promoted by those who believed in progress, was far from reaching the goal that they had planned. As Adorno and Horkheimer pointed out,¹⁵ it turned out that its project could not prevent a catastrophic outcome.

The Nazi's attempt to exterminate the Jewish people, an attempt symbolized under the name of "Auschwitz",¹⁶ was to be experienced as apocalyptic, especially by those who were targeted: French philosopher Emmanuel Levinas started his phenomenological analysis by referring to "the situation of an end of the world" in his book written in 1947, just after being liberated from a camp of prisoners during WWII.¹⁷

It was the German-Jewish thinkers who were forced to flee from their home country, those like Theodor Adorno and Hannah Arendt, that contributed most to the comprehension of Auschwitz as a catastrophe. The expression repeatedly used by Adorno, "after Auschwitz", was of great relevance, since it introduced to a comprehension of catastrophe an insight concerning temporality, precisely, an interrupting moment that cut off a linear progression of time. This insight was shared by Arendt; even though she entitled her book *The Origins of Totalitarianism*, what she intended was not to grasp chronologically the "origins" that would have originated a phenomenon called "totalitarianism", but to bring to light the elements that would help understand the reason why this unprecedented event could have occurred.¹⁸

While to a relatively smaller degree, "Hiroshima" and "Nagasaki" have nevertheless attracted the attention of a certain number of philosophers.¹⁹ Besides, for example, Bertrand Russell's engagement against nuclear weapons that might be classified as more political than philosophical, we can consult an important reflection on Hiroshima by Georges Bataille written in 1947, "Concerning the Accounts Given

¹⁵ T. Adorno and M. Horkheimer, *Dialectic of Enlightenment*, transl. by Edmund Jephcott, Stanford University Press, 2002

¹⁶ Among innumerable books written on this subject, see the works of Emil Fackenheim and in particulier O. Ombrosi, *The Twilight of Reason: Benjamin, Adorno, Horkheimer and Levinas Tested by the Catastrophe*, Academic Studies Press, 2011.

¹⁷ E. Levinas, *Existence and Existents*, transl. by Alphonso Lingis, Kluwer Academic, 1978, p. 21.

¹⁸ Cf. H. Arendt, "Reply to Eric Voegelin", in *Essays in Understanding*, Harcourt Brace & Company, 1994, p. 408.

¹⁹ For an overview of philosophical reflections on Hiroshima, see E. Demenchonok (ed.), *Philosophy After Hiroshima*, Cambridge Scholars Publishing, 2010.

by the Residents of Hiroshima”,²⁰ or Karl Jaspers’s monumental book published in Germany in 1958, *The Atom Bomb and the Future of Man*.²¹

“Hiroshima” was not overlooked in Anglo-American philosophy. The British philosopher Elisabeth Anscombe protested Oxford’s decision to confer an honorary doctorate on Harry Truman. By admitting that “choosing to kill the innocent as a means to your ends is always murder”,²² she has challenged the utilitarian way of justifying the massive extermination. This issue of how or whether we can justify the decision to use weapons of mass destruction continues to be discussed from the perspective of ethics and political philosophy, including its leading philosophers like Michael Walzer and John Rawls.²³

Nevertheless, the question does not consist in simply knowing whether the utilitarian approach can be justified in the case of this event of massive destruction and its catastrophic outcome. Here again, we should question whether such a catastrophic event is still an outcome of the decisions truly made by humans. In this regard, we cannot underestimate the importance of the insight of a German-born philosopher, Günther Anders. He has published in 1956 his theoretical reflection on the transformation of human existence, *The Outdatedness of Human Beings*, where he put forward the notion of “Apocalyptic Blindness” to explain how the complexity of advanced technology has made possible the situation in which men become unable to imagine the consequences of what they had created; between the human capacity of imagination and that of fabrication, there is a gap difficult to bridge, which he calls a “Promethean gap”.²⁴ This insight was concretized by his visit to Hiroshima and Nagasaki in 1958²⁵ and by his correspondence with the Hiroshima pilot Claude Eatherly.²⁶ In these essays, he pointed out that in the case of the use of the atomic bomb, even if it belongs to a human activity toward another human being, the feeling

²⁰ Translated by A. Keenan in C. Caruth (ed.), *Trauma: Explorations in Memory*, John Hopkins University Press, 1995.

²¹ K. Jaspers, *The Atom Bomb and the Future of Man*, University of Chicago Press, 1963.

²² E. Anscombe, “Mr. Truman’s Degree”, in *The Collected Papers of G.E.M. Anscombe*, vol. 3, Blackwell, 1981.

²³ M. Walzer, *Just and Unjust Wars*, Basic Books, 1977; J. Rawls, “Fifty Years after Hiroshima”, in *Dissent*, Summer 1995.

²⁴ G. Anders, *Die Antiquiertheit des Menschen*, Bd. 1: *Über Die Seele Im Zeitalter der Zweiten Industriellen Revolution*, C. H. Beck, 1956.

²⁵ G. Anders, *Der Mann auf der Brücke: Tagebuch aus Hiroshima und Nagasaki*, C.H. Beck, 1959; reprinted in *Hiroshima ist überall*, C. H. Beck, 1982.

²⁶ C. Eatherly and G. Anders, *Burning Conscience: The Case of the Hiroshima Pilot Claude Eatherly*, Verdun Press, 2015.

of responsibility or guilt is felt less and less by the actor, while the victims have less and less a sense of revenge. Although the catastrophic event itself had its origin in human conduct, it comes to appear as if it fell from the sky like a natural phenomenon. Günther Anders has thus traced the transformation of catastrophe in the age of technology, which had already made technologically possible the end of the world by human means. Catastrophe, which once seemed to have fallen to the human realm from the divine at the moment of the Lisbon earthquake, has now risen to the realm of “system”; being re-naturalized so to speak, it has gone up out of the range of human capacities.

This kind of systemic approach was shared by several philosophical reflections on the development of technology after WWII. Best known is the analysis of Heidegger on what he calls “*Gestell*” to describe the essence of the increased technologization of the modern world: all beings are understood as materials and are forced to be exploited as a part of the system.²⁷ In this regard, we might refer to a series of critiques of modern technology by post-Heideggerian philosophers, including Hannah Arendt or Günther Anders, of course, but also other thinkers. An American historian, sociologist, and philosopher of technology, Lewis Mumford refers to the “megamachine”, which the spread of science and technology creates in order for social organization to be ordered as a device of mediation articulated according to its aim,²⁸ whereas a French philosopher Jacques Ellul describes a similar structure by the term “technological system”.²⁹

These types of criticism of technology should not be considered as simple technophobia or as an appeal to a return to some pastoral experience uncontaminated by technology. According to Heidegger’s famous interview with *Der Spiegel* in 1966, the most “awful” thing about modern technology lies not in a breakdown of a system due to a malfunction but in the fact that “Everything is functioning”. All the configurations that aim toward keeping the system running well contain within them the possibility of bringing about a disastrous effect in a broader way. This remark does not remain purely theoretical. It will help us understand how catastrophe has changed its face through technological development. In fact, it is possible to say that this remark echoes what the sociologist Charles Perrow has called “normal accidents” just after the nuclear accident of Three Mile Island. The accidents in the technological era

²⁷ Cf. M. Heidegger, *The Question Concerning Technology and Other Essays*, Harper, 1977.

²⁸ L. Mumford, *The Myth of the Machine. Technics and Human Development*, vol. 2, Harcourt Brace Jovanovich, 1970.

²⁹ J. Ellul, *The Technological System*, Wipf and Stock, 2018.

should not be understood in the sense of some unpredictable and astonishing turning event but in the sense that they are intrinsic to the vastly connected structure of our ordinal life in its dependence on high-risk technologies.³⁰

In the latter half of the 20th century, population growth and the increasing pollution of the environment caused by the economic activities of advanced countries raised concerns about the catastrophic consequences brought by modern civilization. The famous reports of the Club of Rome can be considered as a new kind of prophecy of doom. These concerns have indeed provoked academic interests, especially in the field of social science.

The first approach was made by so-called disaster studies. Since the 1950s and 1960s, scholars in sociology and anthropology have sharpened the notion of disaster, by distinguishing it from other related terms, such as emergence and catastrophe, by pointing out similarities and differences between technological and natural disasters, or by taking into account ecological problems to redefine disaster in the context of global change.³¹

The other approach lies in a theorization of the notion of risk in a variety of research frameworks. This notion had been the object of theoretical reflections (in particular in economics and sociology), with an aim to give it a more precise definition, by distinguishing it from an uncertainty (Frank H. Knight) or from a danger (Niklas Luhmann). But what is most important for the understanding of the problem of risk in the actual context is what German sociologist Ulrich Beck theorized with his notion of “Risk Society”. According to Beck, risk should not be understood in its narrow sense, as a probability of damage that will have a negative effect. It has changed its nature in the modern world and should be considered as “a systematic way of dealing with hazards and insecurities induced and introduced by modernisation itself”.³² The risk society can thus bring about disastrous or catastrophic effects in a large-scale, unpredictably, unavoidably, artificially, globally, and, what is more, in a “reflexive” way, that is to say, as the consequences of modernization itself.

Despite these efforts to develop conceptual frameworks, disasters themselves have continued to become so bloated and so complex that it has turned out that the

³⁰ C. Perrow, *Normal Accidents. Living With High-Risk Technologies*, Basic Books, New York, 1984.

³¹ See especially E. Quarantelli (ed.), *What is a Disaster?: Perspectives on the Question*, Routledge, 1998.

³² U. Beck, *Risk Society: Towards a New Modernity*, transl. by Mark Ritter, Sage Publications, 1992.

prevention or prevention based on scientific evaluation of risk is not sure enough to deal with them. The Rio Declaration on Environment and Development in 1992 thus had to recognize the Precautionary Principle, by maintaining that, in order to facilitate environmental decision-making, if there is a suspected risk of causing harm to the environment, the lack of full scientific certainty should not be used as a reason not to take preventative measures to prevent environmental degradation.

On the other side, the risk-based approach is contested in another context. Although this approach presupposes that the undesirable outcome should and can be prevented, this framework seems insufficient to deal with the increasing complexity of catastrophic events. The French review *Esprit* published a special issue on “Catastrophes” in 2008, which begins with a significant manifesto written by the “Groupe 2040”. 2040 signifies “a decisive turning point in many areas”, which will bring about, if not an apocalyptic end of the world, at least a vast transformation of almost all atmosphere due to depletion of fossil resources, global warming, etc.³³ To take this possibility seriously into account, the group proposes a transformation of the character of catastrophe itself: “Our time seems to be not only that of “the” Catastrophe but of various catastrophes, be it climatic, economic or politic, social or medical”. It is a convergence of various catastrophes that makes difficult any effort to predict and prevent their consequence, and that at the same time requires a task to think differently.

The works of French philosopher Jean-Pierre Dupuy, who took the lead in this manifesto, are highly important to understand this task. While he worked initially in the field of economics and political theory, and even cognitive science, he started to give a series of philosophical reflections on catastrophe in the 2000s. With his main works, *How to Think about Catastrophe: Toward a Theory of Enlightened Doom Saying*,³⁴ published first in French in 2002, and *A Short treatise on the Metaphysics of Tsunamis* (2005), he proposes a “theory of enlightened doom saying”, which consists mainly of the conviction that what might seem impossible, in short, a catastrophic outcome, can be considered nevertheless as absolutely certain, based on the state of actual knowledge. This theory should be distinguished from religious types of doom saying as well as from certain tendencies of alarmism that insist on the unavoidable collapse of industrial civilization (especially “collapsology” proposed by

³³ Groupe 2040, “Penser les catastrophes”, *Esprit*, no. 3, 2008.

³⁴ Michigan University Press, 2022.

French intellectuals).³⁵ Moreover, he criticizes the risk-based approach, which in his eyes does not consider seriously the occurrence of a catastrophe because of its theoretical framework of the cost-benefit calculation; he proposes for his part a “phenomenology of time” which consists in defining a fixed point in the future, that is to say, holding for certain the occurrence of a catastrophe so that we can reconsider in a backcasting manner our thought and action from this point of view.

For us, the Japanese, the 2011 Tohoku earthquake and tsunami and the nuclear accident at the Fukushima Daiichi Nuclear Power Station that followed were an experience of a catastrophe, in the sense that, according to the expression of Dupuy, what seemed impossible became certain. But it was not simply an upheaval that changed all reality; it was also an experience of the “normality” or even “banality” of catastrophe. The remark of Dupuy is again persuasive: “The terrible thing about a catastrophe is that not only does one not believe it will occur even though one has every reason to know it will occur, but once it has occurred it seems to be part of the normal order of things. Its very reality renders it banal”.³⁶

According to another French philosopher Jean-Luc Nancy, what Fukushima has revealed is a situation that existed already “before Fukushima” and that revealed its hidden character, which used to be considered “normal”; namely, the global situation of a complex entanglement of interdependencies and interaction between multiple actors (political, industrial, financial, scientific, technological, natural, etc.). If then the specificity of Fukushima lies in this kind of interconnection of natural cause and artificial or technological structures, we can no longer make a distinction between natural, industrial and other kinds of catastrophes. Jean-Luc Nancy thus designated this situation under the title of “equivalence of catastrophes”,³⁷ for which sociologists seem to prefer the term “structural disaster”³⁸.

The chronology of catastrophes nowadays does not stop at this point. Covid-19 made us see once again a scene of quasi-apocalyptic end all over the world. This time too, the catastrophe showed another aspect. Whereas the catastrophes of the past had a proper name to indicate where they happened, such as “Auschwitz”, “Hiroshima”, or “Fukushima”, COVID-19 brought forth a new situation where there

³⁵ On the collapsology, see P. Servigne et R. Stevens, *Comment tout peut s’effondre. Petit manuel de collapsologie à l’usage des générations présentes*, Seuil, 2015.

³⁶ J.-P. Dupuy, “The precautionary principle and enlightened doomsaying”, in *Revue de métaphysique et de morale*, no. 76, 2012.

³⁷ J.-L. Nancy, *After Fukushima: The Equivalence of Catastrophes*, Fordham University Press, 2015.

³⁸ M. Matsumoto, *The Sociology of Structural Disaster: Beyond Fukushima*, Routledge, 2021.

might be no need to specify a location and a time, as if catastrophe would occur anywhere and anytime. Philosophers did not remain indifferent to this pandemic. The Italian philosopher Giorgio Agamben criticized a new type of disposition of government that arises from a combination of the state power that attempts to normalize the temporary measures limited to the state of emergency, and what he calls “bio-security”, which gives privilege to the value of life.³⁹ As for Jean-Pierre Dupuy, by admitting that this time the catastrophe is no more an event to come but the situation in which we are actually confined, he questions a variety of logics of COVID sceptics and evaluates them from a philosophical point of view.⁴⁰

Perhaps, we may admit that this expression of normalization of the state of emergency would summarize the stakes of the catastrophe to which we are confronted now, and that this problem lies above all at the center of the problem of climate change. A lot of arguments are posed about the catastrophic aspect of its effects, such as global warming, resource scarcity, and so on, from the perspective of ethics,⁴¹ as well as from that of ecology.⁴² We would like to limit ourselves to suggest some points that concern our problem of the catastrophe. These points are linked to a debate on Anthropocene.

We can recall that Nobel prize scientist Paul Crutzen, an advocate of the notion of Anthropocene, constantly warned of all sorts of catastrophic outcomes made by the development of technology and industry, such as the destruction of the ozone layer, Nuclear winter, and now climate change due to greenhouse gases. The notion of Anthropocene that Crutzen popularized had so great an impact on a variety of thinkers and actors that it provoked certain types of responses to deal with this ecological catastrophe. The first response is adaptation; namely the process of adjustments in ecological, social, or economic systems in response to climate change, by reducing vulnerability and building resilience. This will eventually affect human capacity, which might find certain echoes in the arguments of post-humanists. The second is

³⁹ G. Agamben, *Where Are We Now?: The Epidemic As Politics*, Rowman & Littlefield Pub Inc, 2021.

⁴⁰ J.-P. Dupuy, *La Catastrophe ou la vie - Pensées par temps de pandémie*, Seuil, 2021.

⁴¹ Cf. S. Gardiner, *A Perfect Moral Storm: The Ethical Tragedy of Climate Change*, Oxford University Press, 2011; H.-S. Afeissa, *La fin du monde et de l'humanité. Essai de généalogie du discours écologique*, PUF, 2014; L. Hartzell-Nicholas, *A Climate of Risk: Precautionary Principles, Catastrophes, and Climate Change*, Routledge, 2017.

⁴² Cf. F. Guattari, *Les trois écologies*, Galilée, 1989 ; C. Larrère et R. Larrère, *Du bon usage de la nature : Pour une philosophie de l'environnement*, Aubier, 1997 ; I. Stengers, *Au temps des catastrophes. Résister à la barbarie qui vient*, La découverte, 2009; H.-S. Afeissa et al. *Ecosophies. La philosophie à l'épreuve de l'écologie*, Editions MF, 2009.

degrowth, which criticizes the capitalist way of life and in particular the growth-centered economical system, identified as a cause of global warming, in order to seek a sustainable society.⁴³ But the third one is the most important for our topic. Not being satisfied with these two claims, judged as not enough or not effective, some scientists dare to rely on a certain kind of “catastrophism”, namely on technical or engineering intervention that might save the planet from its collapse at the expense of degradation of certain atmospheric conditions.⁴⁴ If we can no longer overlook the risk of the extinction of the whole human race, we might have no choice other than this possibility of making a “catastrophe” by ourselves, neither an adaptation to a devastated world nor an appeal to a new habitable world being unrealizable. We might add that the possibility of the extinction of humankind has already constituted the theme of philosophical examinations.⁴⁵

Based on these recognitions, this special issue seeks to bring forward new understandings and new approaches to catastrophe. How can we evaluate the concept of catastrophe and other notions related, such as disaster, accident, and risk from our experiences of the past and of the present? What can we learn from philosophers on these topics? What is the role of human beings in the age of catastrophes? What kind of philosophical reflections is to be made on a concrete catastrophic event?

Masaki Ichinose is a specialist of British empiricism and has published many books on the notions of causation, probability, and personality. After 3.11, he has been involved in a debate over how philosophy can deal with situations after catastrophes and published *Hōshanō mondai ni tachimukau tetugaku* [Philosophy confronted with the problem of radioactivity] (2013) and *Inochi to risuku no tetsugaku: Byōsaigai no sekai o shinayaka ni ikinuku tame ni* [Philosophy of life and risk: resiliently surviving the world of disease and disaster] (2021). In his article, he begins by examining the concepts of risk, precaution, and causation in order to propose, based on the evaluation of the measures taken at the case of the Fukushima Daiichi Nuclear Power Station Accident, a sophisticated and applicable version of the precautionary principle.

⁴³ See especially the works of S. Latouche, among other thinkers in the domain of “écologie politique” in France.

⁴⁴ See S. Asayama, “Catastrophism toward ‘opening up’ or ‘closing down’? Going beyond the apocalyptic future and geoengineering”, *Current Sociology*, vol. 63 (1), 2015.

⁴⁵ See for example R. Brassier, *Nihil Unbound : Enlightenment and Extinction*, Palgrave Macmillan, 2007; J. Leslie, “The Risk that Humans Will Soon Be Extinct”, *Philosophy*, vol. 85, no. 334, 2010.

Nicolas Prignot is a physicist and philosopher. Through the influence of the works of the Belgian philosopher of science Isabelle Stengers, he is now interested in the work of philosopher Félix Guattari and the philosophy of nature in associative environmental movements. His article shows how the Fukushima catastrophe can be understood in the perspective of the eco-philosophy of Guattari.

The works and interests of Orietta Ombrosi are well demonstrated by her first important work (originally written in French), *The Twilight of Reason: Benjamin, Adorno, Horkheimer and Levinas Tested by the Catastrophe*. As the title indicates, she has been working on these Jewish-born philosophers who had the experience of catastrophe during WWII. She is also interested in philosophical debates on the nuclear and edited *Nuclear Power: A Scientific and Philosophical Issue from 1945 to Today* (Mimesis, 2020). Her article examines how two German-born Jewish philosophers, Adorno and Anders, considered the two emblematic catastrophes of the 20th century, Auschwitz and Hiroshima.

Finally, Jean-Pierre Dupuy, cited frequently above, gives a concluding remark; he gives firstly a metaphysical framework of doomsaying and then evaluates, from this point of view, the Nuclear Deterrence Theory.

References

- Adorno, Theodor & Horkheimer, Max (2002) *Dialectic of Enlightenment*. trans. by Edmund Jephcott. (Redwood City: Stanford University Press).
- Afeissa, Hicham-Stéphane et al. (2009) *Ecosophies. La philosophie à l'épreuve de l'écologie*. (Paris: Editions MF).
- Afeissa, Hicham-Stéphane (2014) *La fin du monde et de l'humanité. Essai de généalogie du discours écologique*. (Paris: PUF).
- Agamben, Giorgio (2021) *Where Are We Now?: The Epidemic As Politics*. (Lanham: Rowman & Littlefield Pub Inc).
- Amanat, Abbas & Bernhardsson, Magnus Thorkell (2002) *Imaging the end. Visions of apocalypse from the Ancient Middle East to Modern America*. (London: I. B. Tauris).
- Anders, Guenther (1956) *Die Antiquiertheit des Menschen*, Bd. 1: *Über Die Seele Im Zeitalter der Zweiten Industriellen Revolution*. (München: C. H. Beck).
- Anders, Guenther (1959) *Der Mann auf der Brücke: Tagebuch aus Hiroshima und Nagasaki*. (München: C. H. Beck); reprinted in *Hiroshima ist überall*. (München: C. H. Beck) 1982.
- Anscombe, Elizabeth (1981) Mr. Truman's Degree, in *The Collected Papers of G.E.M. Anscombe*, vol. 3. (Oxford: Blackwell).

- Arendt, Hannah (1994) Reply to Eric Voegelin, in *Essays in Understanding*. (San Diego: Harcourt Brace & Company).
- Asayama, Shinichiro (2015) Catastrophism toward ‘opening up’ or ‘closing down’? Going beyond the apocalyptic future and geoengineering. *Current Sociology*, 63 (1), 89–93.
- Aubin-Boltanski, Emma et Gauthier, Claudine (2014) *Penser la fin du monde*. (Paris: CNRS).
- Beck, Ulrich (1992) *Risk Society: Towards a New Modernity*, trans. by Mark Ritter. (Thousand Oaks: Sage Publications).
- Bornet, Ph. et al. (dir.) (2012) *La fin du monde. Analyses plurielles d’un motifs religieux, scientifique et culturel*. (Genève: Labor et Fides).
- Bostrom, Nick and Cirkovic, Milan M. (2008) *Global Catastrophic Risk*. (Oxford: Oxford University Press).
- Brassier, Ray (2007) *Nihil Unbound : Enlightenment and Extinction*. (London: Palgrave Macmillan).
- Braun, Theodore E. D. and Radner, Jojn B. (2005) *The Lisbon earthquake of 1755. Representations and reactions*. SVEC, vol. 2. (Oxford: Voltaire Foundation).
- Buchet, Luc et al. (dir.) (2009) *Vers une anthropologie des catastrophes*. (Éditions APDCA/INED).
- Caruth, Cathy (ed.) (1995) *Trauma: Explorations in Memory*. (Baltimore: John Hopkins University Press).
- Coquio, Catherine, Engélibert, Jean-Pierre et Guidée, Raphaëlle (dir.) (2018), *L’apocalypse : une imagination politique (XIV^e-XXI^e siècles)*. (Rennes: Presses Universitaires de Rennes).
- Dauphiné, André et Provitolo, Damienne (2013) *Risques et catastrophes. Observer, spatialiser, comprendre, gérer*. (Malakoff: Armand Colin).
- Debray, Régis (2011) *Du bon usage des catastrophes*. (Paris: Gallimard).
- Demenchonok, Edward (ed.) (2010) *Philosophy After Hiroshima*. (Cambridge: Cambridge Scholars Publishing).
- Douglas, Mary and Wildavsky, Aaron (1983) *Risk and Culture*. (Berkeley: University of California Press).
- Douglas, Mary (1992) *Risk and Blame. Essays in Cultural Theory*. (London: Routledge).
- Dupuy, Jean-Pierre (2005) *A Short treatise on the Metaphysics of Tsunamis*. Trans. By Malcolm B. DeBevoise. (East Lansing: Michigan State University Press).
- Dupuy, Jean-Pierre (2012) The precautionary principle and enlightened doomsaying, in *Revue de métaphysique et de morale*, 76.
- Dupuy, Jean-Pierre (2021) *La Catastrophe ou la vie - Pensées par temps de pandémie*. (Paris: Seuil).

- Dupuy, Jean-Pierre (2022) *How to Think about Catastrophe: Toward a Theory of Enlightened Doom Saying*. (East Lansing: Michigan State University Press)
- Eathely, Claude and Anders, Günther (2015) *Burning Conscience: The Case of the Hiroshima Pilot Claude Eatherly*. (Verdun Press).
- Emmerson, Richard K. and McGinn, Bernard (1992) *The Apocalypse in the Middle Ages*. (Ithaca: Cornell University Press).
- Ellul, Jacques (2018) *The Technological System*. (Eugene: Wipf and Stock).
- Ewald, François (1986) *L'État providence*. (Paris: Grasset).
- Ferguson, Niall (2021) *Doom. The Politics of Catastrophe*. (New York: Penguin Press).
- Foessel, Michaël (2012) *Après la fin du monde. Critique de la raison apocalyptique*. (Paris: Seuil).
- Ombrosi, Orietta (2011) *The Twilight of Reason: Benjamin, Adorno, Horkheimer and Levinas Tested by the Catastrophe*. (Boston: Academic Studies Press).
- Fressoz, Jean-Baptiste (2012) *L'Apocalypse joyeuse. Une histoire du risque technologique*. (Paris: Seuil).
- Gardiner, Stephen M. (2011) *A Perfect Moral Storm: The Ethical Tragedy of Climate Change*. (Oxford: Oxford University Press).
- Guattari, Félix (1989) *Les trois écologies*. (Paris: Editions Galilée).
- Hacking, Ian (1990) *The Taming of Chance*. (Cambridge: Cambridge University Press).
- Hartzell-Nicholas, Lauren (2017) *A Climate of Risk: Precautionary Principles, Catastrophes, and Climate Change*. (London: Routledge).
- Heidegger, Martin (1977) *The Question Concerning Technology and Other Essays*. (New York: Harper).
- Horn, Eva (2018) *Future as Catastrophe. Imaging Disaster in the Modern Age*. (New York : Columbia University Press).
- Huet, Marie-Hélène (2012) *The Culture of Disaster*. (Chicago: The University of Chicago Press).
- Huzar, Eugène (2008) *La fin du monde par la science [1855]*. (Toulouse: Éditions ERE).
- Jaspers, Karl (1963) *The Atom Bomb and the Future of Man*. (Chicago: University of Chicago Press).
- Labbé, Thomas (2017) *Les catastrophes naturelles au moyen âge*. (Paris: CNRS).
- Larrère, Catherine et Larrère, Raphaël (1997) *Du bon usage de la nature : Pour une philosophie de l'environnement*. (Paris: Aubier).
- Leguay, Jean-Pierre (2005) *Les catastrophes au Moyen-Âge*. (Quintin: Gisserot).
- Leslie, John (2010) The Risk that Humans Will Soon Be Extinct. *Philosophy*, 85(334), 447–463.

- Levinas, Emmanuel (1978) *Existence and Existents*. Trans. by Alphonso Lingis. (Dordrecht: Kluwer Academic).
- Matsumoto, Miwao (2021) *The Sociology of Structural Disaster: Beyond Fukushima*. (London: Routledge).
- Meiner, Carsten and Veel, Kristin (eds.) (2012) *The Cultural Life of Catastrophes and Crises*. (Berlin: Walter de Gruyter).
- Moreau, Yoann (2017) *Vivre avec les catastrophes*. (Paris: PUF).
- Mumford, Lewis (1970) *The Myth of the Machine. Technics and Human Development*, vol. 2. (San Diego: Harcourt Brace Jovanovich).
- Nancy, Jean-Luc (2012) *L'équivalence des catastrophes (après Fukushima)*. (Paris: Editions Galilée).
- Nancy, Jean-Luc (2015) *After Fukushima: The Equivalence of Catastrophes*. (New York: Fordham University Press).
- Neyrat, Frédéric (2008) *Biopolitique des catastrophes*. (Paris: Éditions MF).
- Perrow, Charles (1984) *Normal Accidents. Living With High-Risk Technologies*. (New York: Basic Books, New York).
- Poirier, Jean-Paul (2005) *Le tremblement de terre de Lisbonne*. (Paris: Odile Jacob).
- Quarantelli, Enrico L. (1978) *Disasters. Theories and Research*. (Thousand Oaks: Sage Publications).
- Quarantelli, Enrico L. (ed.) (1998) *What is a Disaster? Perspectives on the questions*. (London: Routledge).
- Quenet, Gregory (2005) *Les tremblements de terre aux XVII^e et XVIII^e siècles. La naissance d'un risque*. (Seysssel: Champ Vallon).
- Rawls, John (1995) Fifty Years after Hiroshima, in *Dissent*, Summer.
- Servigne, Pablo et Stevens, Raphaël (2015) *Comment tout peut s'effondre. Petit manuel de collapsologie à l'usage des générations présentes*. (Paris: Seuil).
- Shklar, Judith (1990) *The Faces of Injustice*. (New Haven: Yale University Press).
- Stengers, Isabelle (2009) *Au temps des catastrophes. Résister à la barbarie qui vient*. (Paris: La découverte).
- Walter, François (2008) *Catastrophes. Une histoire culturelle XVI^e-XXI^e siècle*. (Paris: Seuil).
- Walzer, Michal (1977) *Just and Unjust Wars*. (New York: Basic Books).
- Zaoui, Pierre (2010) *La traversée des catastrophes. Philosophie pour le meilleur et pour le pire*. (Paris: Seuil).