

# Commemorating the Chernobyl disaster: Remembering the future

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We are commemorating Chernobyl. For the twentieth time already. Only for the twentieth time. In 2006, this major event of the last century will undoubtedly draw incommensurably more attention than the media and the public usually devote to it – for a few days, or at best a few weeks – every year towards the end of April. In many countries, the usual, almost universal indifference will give way to a frenzy of commemoration fuelled by press reports, TV and radio programmes, and public events.<sup>1</sup> For those of us who have spent years working to understand the consequences of this catastrophe, or those reflecting upon social and political change in eastern Europe and the future of that region, the short-lived curiosity and media hype inevitably triggered by such an “anniversary” provide a welcome occasion to raise awareness among a larger public, to inform people, and to contribute to a broad debate. But the commemoration will also certainly be accompanied by a spectacular commodification of the social and historical memory of the accident and, even more sadly, of the victims’ memory. Thus Corbis, a large international agency, recently acquired the copyright to the photos taken by the Ukrainian photographer Igor Kostin, who shot the first photograph of the burst reactor and was the only one constantly present there from the first days after the accident. For others, this event provides an opportunity to do business; once the commemoration is over, they will quickly lose interest in the catastrophe and turn to other, more lucrative topics. Even though most of the current initiatives are not driven by hypocrisy and commercial cynicism, one is still tempted to ask what they are meant to achieve, and what risks are inherent in them. They don’t really help us to understand the catastrophe, because Chernobyl is more than a trivial technological accident belonging to the past; it is a catastrophe that has an effect on the present and constructs and determines the future. As we move further away in time from the accident, as our memory of it fades and as the witnesses die, it becomes more and more obvious that the issue of Chernobyl has a continued presence and urgency. This makes it problematic to commemorate this past which refuses to pass away.

The logic of commemoration implies that one is dealing with an event of the past, belonging to history. The constant references to the date of the accident tend to mask one of the essential features of this new type of catastrophe. Unlike past disasters, most victims of contamination – with the exception of the reactor’s staff, the firemen, and the local residents, who directly witnessed the accident – experienced no “primal event”. Chernobyl changed the very nature of catastrophe: instead of destroyed cities and battlefields, there is now an eternally petrified city – Pripyat – and a war without enemies whose “heroes” – about 800 000 so-called “liquidators” – were also the defeated.<sup>2</sup> Robbed of a visible face, there is no past event the millions of people who live in the contaminated areas can refer to and commemorate.

It is above all everyday life and the fact of being brutally cast into a world that obeys new rules and new prohibitions. Through the novelty it holds, everyday life itself becomes an event. On a different level, the primary event consisted in the evacuation policy – first from the area next to the reactor, then from ever more distant zones – which all those affected experienced as a traumatic and uprooting experience. Thus Chernobyl stands above all for the new human condition of millions of survivors condemned to live on permanently contaminated territories. It is in this sense only that, in retrospect, we can see Chernobyl as an event in the sense in which Hannah Arendt understood this term, i.e. as a founding fact and an historic break which caused a qualitative change in the conditions humanity was facing – what Ulrich Beck calls an “anthropological shock”.<sup>3</sup>

## Commemoration and trivialization of a catastrophe

How does one commemorate a catastrophe that is still unfolding? It seems that commemorations of technological catastrophes are above all occasions to take stock, to review what we know about their consequences (a knowledge which in the case of Chernobyl will always remain provisional), and to rewrite the history of those tragedies. Most importantly, these symbolic dates reveal the future of the catastrophes and of the populations concerned. Thus the twentieth anniversary of the Chernobyl disaster is being carefully prepared by international organizations who, starting in the late summer of 2005, kicked off, and set the tone for, numerous initiatives to commemorate this event; this came only a few weeks after the sixtieth anniversary of the bombardments of Hiroshima and Nagasaki, which reminded us of the circumstances of Western civilization’s entry into the atomic age, after which humanity lived on borrowed time. If the atomic age has a history that can’t be ignored, then Chernobyl is undoubtedly one of the major events in that history, and we must try to comprehend that event both in its uniqueness and in its paradigmatic character. The area contaminated by the radioactive fallout is a vast open-air laboratory and a testimony to what Günther Anders said only fifty years ago about the atomic bomb: “experiments” are now constituent parts of our historical reality.<sup>4</sup> The Chernobyl disaster, the outcome of a failed experiment, made the residents of these territories learn that painful lesson, turning them into the new guinea pigs of the nuclear age.

Having lived after the catastrophe and with the catastrophe for twenty years, they agonize over the question: “Can we live here?” They also put that question to the “enlightened” experts passing through. But the question generally remains unanswered and plunges those who are supposed to provide an answer, which would be perceived as a verdict, into deep perplexity. Thus the fate of over eight million people has been, and largely remains, conditioned by the experts’ judgement on this recurrent question. And even if, following a logic of caution, they answered in the negative, they would only leave people with the two equally impossible alternatives of staying or leaving.

However, what the so-called scientific community – an inappropriate term given the profound disagreement on these issues – and the authorities of the countries concerned have to say about these issues is a far cry from the residents’ concerns. There is no room here for a detailed discussion of the official report on the consequences of the disaster and the responses presented as “definitive” at last year’s Chernobyl Forum<sup>5</sup> in view of the forthcoming twentieth anniversary. However, this document seems to me to be particularly

indicative of what is at stake in this commemoration. It raises questions about our (in)capacity for learning lessons from past disasters, but perhaps also, more broadly, about the attitude of techno-scientific societies towards their catastrophic evolution. The conclusions offered are presented as particularly “reassuring”; they stem from a way of thinking that aims to minimize not the *real* consequences of the catastrophe, but the image of these consequences in the eyes of the victims and the public. We seem to be dealing with what Yves Lenoir,<sup>6</sup> ten years after the tragedy, called “the optimization of tragedy”, in other words, a strategy of trivializing the health problems caused by radiation and living in a contaminated area. Information plays an essential part in this strategy, which makes the reports published appear as narratives<sup>7</sup> aiming to impose a certain view of – past and future – history in order to legitimize the policies implemented after the accident and the economic and agricultural reconstruction in the regions concerned. These rehabilitation policies, which are often subject to manipulation despite the often praiseworthy intentions of those who devise them and carry them out, seem to be the main rationale behind the actions of the IAEA and the WHO.<sup>8</sup>

Rarely has there been such a drastic downward revision of published figures, concerning actual and expected deaths<sup>9</sup>, observed and expected cancers, or the number of “liquidators” and residents of the contaminated areas. I shall not quote the new “data” here: they have been widely made known in the media, and will continue to be publicized. The controversy that is fuelled by these data is becoming increasingly bitter, since they are an insult to the victims, subjecting them to a symbolic violence equal only to that which they had to endure not long ago when they were accused of “radiophobia”. While that term ended up being dropped and discredited by the very people who had introduced it, the fact that they are now talking of “mental health problems” and attributing a psychosomatic origin to the numerous pathologies found among the inhabitants proves that only the term was abandoned, whereas the underlying logic of attributing psychiatric causes to health problems is still dominant. This can be called a “blatant form of denial of a nuclear holocaust”<sup>10</sup>, and the fact that it is recognized as the official truth by the main international public bodies makes it all the more alarming. The award of the Nobel Peace Prize to the IAEA and its director a few weeks after the publication of the Chernobyl Forum’s report leaves little hope that this powerful organization may one day be taken to task for the revisionist position that it has consistently supported since 1986 and that it has managed to force upon the international community.

In his report to the sixtieth General Assembly of the United Nations last November, Kofi Annan made it clear what is at stake in the twentieth anniversary commemorations:

In all those events, the message that the organizers choose to convey will have crucial significance. In keeping with the new developmental approach to Chernobyl, it is important that commemorative events are forward-looking and focus on identifying solutions to the challenges that Chernobyl-affected communities face. As important as it is to honour the sacrifice and losses of the past, the best way to attract and keep fresh international attention will be to identify a way forward for Chernobyl.<sup>11</sup>

In his conclusion, he also stressed the need for cooperation between international bodies and the governments of the countries affected. “Such cooperation offers the chance to transform victims into survivors, and to transform Chernobyl from a symbol of destruction to a symbol of human resilience and hope.”

Turning Chernobyl into a symbol of hope may seem at the very least an unexpected thing to propose. Rather than just cooperation, this will necessitate complicity between the main actors involved in the management of the catastrophe. This complicity seems already established. However, the UN Secretary-General's proposal is remarkably at odds with a less optimistic appeal he made on the occasion of the final shutdown of the reactor in 2000, another symbolic date when there was a strong temptation to close the case and turn a page. He then said that we need to carry the burden of the Chernobyl legacy collectively:

"Chernobyl" is a word we would all like to erase from our memory. [...] most of us probably now think of [it] as safely relegated to the past. Yet there are two compelling reasons why this tragedy must not be forgotten. First, if we forget Chernobyl we increase the risk of more such technological and environmental disasters in the future. [...] Secondly, more than seven million of our fellow human beings do not have the luxury of forgetting. They are still suffering, every day, as a result of what happened fourteen years ago. Indeed, the legacy of Chernobyl will be with us, and with our descendants, for generations to come.<sup>12</sup>

Hiroshima has become a symbol of peace, and since 1945 people believed in the virtues of deterrence. 1986, however, was a turning point: Chernobyl made humanity aware of the potential catastrophes inherent in the "risk society". Suddenly, it was clear that our planet had become a world without shelter, that nuclear reactors, previously considered one of the greatest accomplishments of techno-scientific progress, had become "the new omens of a modern Middle Age of danger".<sup>13</sup> In this new context, the post-WWII motto "never again" is no longer available to us. Indeed, after such a nuclear catastrophe, the claims of survival come to clash with the recognition of danger: Chernobyl symbolizes the catastrophic evolution that now constitutes our horizon of expectations. Humanity is facing ever more specific menaces, but at the same time there is a growing denial of reality. Our idea of time as something linear has gone to pieces; it is no longer adequate. For Chernobyl is a catastrophe that is impossible to pin to the past; it can't be seen as merely a bad but scarred wound inflicted by the nuclear adventure. It forces us to reverse the arrow of time and to fashion a memory of the future for ourselves – that future colonized by the atom.

Our era is forced constantly to rewrite its own history in order to roll out the carpet of its future, to recover its past quickly and to recognize it, in order not to lose the ground from under its feet.<sup>14</sup>

I call the fear felt by the residents of the contaminated areas a "stochastic terror". It is related to what the psychoanalyst Donald Winnicott, in a very different context, called the "fear of breakdown", in other words, the fear of a past event which has not yet been lived through. From this point of view, *we are all citizens of Chernobyl*, because the contaminated areas also enable us to see a world that humanity's creative and productive activities contribute to making less and less inhabitable, a world in which we too will probably have to live and survive. In this world, everyday life is just as uncertain as the future; the most trivial practices – eating, going for a walk – become potential "high risk activities". We are simultaneously *natives* of this world (because we have created it, and live in it) and *strangers* to it (because the novelty of this world makes us feel foreign)<sup>15</sup>. Any territory that relies on nuclear power may potentially turn into such a world, even though it may employ risk management devices to make that improbable.

For a growing number of people who are aware both of the enormity of the danger and of their inability to protect themselves from it, the anticipation of the future more and more comes to resemble an expectation of catastrophe. This might come as a single major disaster,

or in a more insidious and creeping form, as an *ongoing* catastrophe<sup>16</sup>, caused by the continuous deterioration of the environment inflicted by the “progress” of the techno-sciences and the pursuit of a mode of development geared to maximizing production, which transforms nature into a contaminated and contaminating techno-nature that is dangerous to humankind.

## What have we learned from Chernobyl?

Chernobyl: a symbol of hope? “Hope must be proscribed, because the word has become synonymous with the blissful expectation that technology will get us out of trouble, just as it is thought to have done in the past. It is this hope that makes humanity’s race appear today as a great panic that no-one is able to escape.” This is the conclusion that the philosopher Jean-Pierre Dupuy draws<sup>17</sup> after his philosophical journey into the land of catastrophe, which took him from Lisbon to Auschwitz, Hiroshima, and New York, as well as, more recently, to Chernobyl.<sup>18</sup> As to the “resilience” that Kofi Annan wants Chernobyl to symbolize, it is like hope in that it stems from the “metaphysical pride of modern humanity”, which, according to Dupuy, constitutes the main obstacle to an attitude which may hold the key to our rescue, an attitude he calls “enlightened catastrophism”. For resilience is based on the conviction that marshalling techno-scientific means will enable us to solve the problems that humanity encounters on the path of progress, “that conveyor belt leading us towards the unpredictable”:<sup>19</sup> these problems are precisely the risks and catastrophes which we mainly generate ourselves and for which we are therefore entirely responsible. “Showing how much humanity fights disasters by preventing them and by handling their consequences doesn’t alter the fact that it has produced most of them itself. This is the ‘vicious circle’ that the word ‘Chernobyl’ symbolizes most succinctly.”<sup>20</sup>

The reassuring and optimistic message sent by the official commemorations of the twentieth anniversary of Chernobyl shows that we haven’t learned anything from that catastrophe either. The atomic age was first greeted with elation and jubilation by those who saw its advent as a progress, a continuation of the modern project of mastering nature, a triumph of rationality rather than a breakdown of reason. The catastrophe of Chernobyl created an awareness of the menaces inherent in this desire for mastery, and of the negative reversibility of technological progress. This caused a crisis of trust, both in nations with a liberal economy and in socialist countries, which was one of the reasons for the change of perspective that led to a more cautious view of the development of techno-sciences and tempered humanity’s enthusiasm and optimism about the future. For once the impossible becomes certain, it forces us to reconsider collective safeguards as well as to view the catastrophic evolution anticipated by Chernobyl as something else than a far-fetched projection. The major nuclear catastrophe, predicted by a few “prophets of evil”, actually took place. But it is doubtful whether a lesson was learned from it. Our societies seem to entertain an ambivalent relationship with catastrophes, and may indeed harbour a desire for catastrophe.<sup>21</sup>

Those whom Walter Benjamin called the “fire detectors”<sup>22</sup> usually run up against their contemporaries’ incredulity, and even when they turn out to have been right and the catastrophe actually takes place, it doesn’t seem to become an educating experience. Facts are no better than words in changing ways of thinking and attitudes that might be able to call a halt to the devastating course humanity is following.<sup>23</sup> As Peter Sloterdijk remarks, “even major accidents [will probably] not cause any fundamental doubts about the course and the

pace of the civilizational process. [...] In the end, consciousness is tougher than facts, and he who didn't want to heed advice when that was still possible, will also refuse to learn from experience".<sup>24</sup> Thus the idea of a pedagogical effect of catastrophe, which "implies the promise that even the biggest disaster may, through subsequent learning, be brought down to a human scale", is destined to fail, notably because it is based on the debatable assumption that there is a necessary link between the catastrophe and our understanding of it, between its "gravity" and the lessons learned. In the end, the inflationary growth of management and communication devices, while part of people's "blindness in the face of apocalypse", which Günther Anders has shown to be an essential feature of the atomic age, serves only to conceal people's inability and incapacity for understanding and learning from the catastrophe that has occurred. Which is why, as Sloterdijk predicted in 1989, "the victims of Chernobyl will continue to suffer terrible agony for a long time, but a zealous didactics will say: even Chernobyl wasn't bad enough, because the international of those who want to carry on will close ranks more tightly than ever. The inexorable consequence is that even worse things must happen – but up to what point?"<sup>25</sup>

That so much still seems uncertain about the consequences of Chernobyl is due less to a lack of knowledge than to the fact that, generally, we don't believe what we know. This fiction, fuelled by a great effort of communication, is based not on ignorance but rather on denial. Christian Carle even considers the new mechanisms of denial the twentieth century's most original contribution to the history of thought, "in the sense that they have suddenly made our relation with both truth and reality extraordinarily problematic".<sup>26</sup> And although "denial, in principle, is alien to science, which is there to free us from it",<sup>27</sup> it must also be observed that denial has a scientific form, of which the Chernobyl Forum's report provides a textbook illustration.<sup>28</sup>

The commemoration of Chernobyl is set to become an attempt to salvage this fiction that prevents humanity from realizing that in trying to subjugate the world, in extending its rule over nature, the best it can achieve is to enlarge its prison. Strangely, even those scientists who make a positive assessment of the ecological impact of the Chernobyl catastrophe on the fauna and flora in the depopulated contaminated areas reach the conclusion that the presence of humanity does much more damage to nature and biodiversity than the worst radiation accidents.<sup>29</sup> Paradoxically, the nuclear catastrophe shows that even if humanity did not cause catastrophes, it would still be, in Cornelius Castoriadis's expression, "the planet's most harmful vermin".<sup>30</sup> But beyond official discourse, the commemoration of Chernobyl might also serve as an occasion to become aware of the fact that for the residents of the contaminated areas, as "for a non-negligible part of the inhabitants of this planet, the end of the world has already occurred, and it's really unclear why we should not one day meet the fate that has befallen them – as if we were inoculated against the plagues [which we produce and] which we export, and as if these plagues, which we concocted, weren't likely one day to come back to us, as worthy children of their father."<sup>31</sup>

Chernobyl: a symbol of humanity's tragic destiny? In Kyoto, there is already a monument to the coming catastrophe, erected to mark the signing, in 1997, of the protocol in which the industrialized countries made a commitment to reduce their greenhouse gas emissions in a ridiculous attempt to avert the disaster foretold. This monument, a sculpture presented as a "message from Earth" to humanity, enjoining it to start afresh, also sends a message of hope: people *will* manage to step aside from the path that leads them to catastrophe, and it *is* possible to make a clean sweep of the past and make a new beginning. Seductive as it may

be, this perspective of an inhabitable world, in which humanity wouldn't risk sparking off catastrophic processes and where it would have a right to err, appears less as a possible future than as a reminiscence of a past that is gone forever. Indeed, Chernobyl has created a situation that provides food for thought: it has shown that a life project designed by a minority deviating from the "official" project no longer has a chance. [...] After Chernobyl, it would be literally suicidal to follow an individual inclination to lead an existence free of all links with information or communication systems, or an existence that renounces technology, the Geiger counter or the gamma ray spectrometer. **32**

Risk society has replaced modernity's "destitute savage" with an "over-equipped hyper-savage", in Georges Balandier's terminology.**33** "Technology is now our fate", Günther Anders wrote, and we must reflect upon "what technology has done, is doing, and will do to us long before we could do anything with it".**34** Nevertheless, even this "desperate" philosopher considered it fundamental to try to master this fate and called for action rather than renunciation, even though this project seemed to him to be destined to fail. He was one of the first to become aware of the fact that the beginning of the atomic age was also the end of modernity, and that, having long maintained they were making history, people would now mainly have to endure it.

## 1

For a non-exhaustive list of the main events to be held in both the affected regions and internationally to commemorate the twentieth anniversary of the Chernobyl accident, see the website of the Swiss Agency for Development and Cooperation: [www.chernobyl.info/index.php?userhash=12261807&navID=498&IID=](http://www.chernobyl.info/index.php?userhash=12261807&navID=498&IID=)

## 1.

## 2

See the section "Construire la mémoire de Tchernobyl?" in: Guillaume Grandazzi, Frédéric Lemarchand, eds., *Les Silences de Tchernobyl. L'avenir contaminé*. Paris 2004, and especially: Guillaume Grandazzi, "L'Atome en héritage", 120-130. A second, expanded edition of that book was published in 2006.

## 3

Ulrich Beck, "The Anthropological Shock: Chernobyl and the Contours of the Risk Society", in *Berkeley Journal of Sociology*, Vol. 32, 1987, 153-165; Guillaume Grandazzi, "L'envers des sociétés technoscientifiques", in *Écologie et politique*, 32, 2006 (forthcoming).

## 4

Günther Anders, *L'obsolescence de l'homme. Sur l'âme à l'époque de la deuxième révolution industrielle*, Paris, Éditions de l'encyclopédie des nuisances/Ivrea 2002 (originally published in 1956). German original: *Die Antiquiertheit des Menschen. Über die Seele im Zeitalter der zweiten industriellen Revolution*, Vol. 1. Munich 1980 (fifth edition), 261.

## 5

The Chernobyl Forum was created at the initiative of the International Atomic Energy Agency (IAEA) and includes seven UN agencies as well as the World Bank and the governments of the most affected republics (Belarus, Ukraine, Russia). Its conclusions, presented in a 3-volume, 600-page report, were released to the public on 5 September 2005 ([www.iaea.org/meetings/rw-summaries/chernobyl\\_forum.htm](http://www.iaea.org/meetings/rw-summaries/chernobyl_forum.htm)). For criticism of that report, see: Sebastian Pflugbeil, "Alle Folgen liquidiert? Die gesundheitlichen Auswirkungen von Tschernobyl", in *Osteuropa*, 4/2006, 81-103.

## 6

Yves Lenoir, "Tchernobyl, l'optimisation d'une tragédie", in *Écologie et Politique*, 18-19/1996, 11-45.

## 7

The Danish philosopher Peter Kemp has analyzed the relationship between narrative, narrativity, ethics, and technology, using the example of the accident of Seveso (Italy) to highlight the role of narrative language in understanding technological risks. A report, even when dressed in scientific regalia, remains a narrative that seeks to command consent: "A story that brings into play technology and its ethical extensions may often be told in different ways. The different versions are largely determined by the end we have chosen to give the story." See: Peter Kemp, *L'irremplaçable. Une éthique de la technologie*, Paris: Éditions du Cerf 1997 (original Danish edition: 1991), 73.

## 8

Guillaume Grandazzi, "Les enjeux de la réhabilitation dans les territoires contaminés par l'accident de Tchernobyl", in H.-J. Scarwell, M. Franchomme, eds., *Contraintes environnementales et gouvernance des territoires*, La Tour d'Aigues: Éditions de l'Aube 2004, 326-333.

## 9

The Chernobyl Forum registered approximately 50 deaths, against 32 that had previously been taken into account by the IAEA. This can hardly be considered "progress" towards a recognition of the real number of deaths due to the population's exposure to radiation after the accident. For more details, see Sebastian Pflugbeil, *op. cit.*

## 10

Frédéric Lemarchand, "Le futur pour mémoire", in Guillaume Grandazzi, Frédéric Lemarchand, *op. cit.*, 139.

## 11

*Optimizing the international effort to study, mitigate and minimize the consequences of the Chernobyl disaster*. Report of the Secretary-General. 24 October 2005. Document A/60/443 (<http://un.by/en/chernobyl/prs/15-11-05-03.html>).



## 12

Kofi Annan, preface to the UN OCHA's report *Chernobyl, a Continuing Catastrophe*, New York, Geneva: United Nations 2000, iii.

## 13

Ulrich Beck, *Risk Society. Towards a New Modernity*. London: Sage Publications 1992 (originally published in 1986).

## 14

Sylvie Le Poulichet, *Environnement et catastrophe*. Paris: Mentha 1991, 82.

## 15

See Georges Balandier, *Le Grand Système*, Paris: Fayard, 2001. In the same perspective, Annie Lebrun wrote: "By precipitating Man beyond his measures and his representations of the world, and finally turning him into nothing but an insignificant element of a phenomenon whose laws escape him, the concept of catastrophe implies a reversal of the relations between the human and the non-human. It thereby becomes an inestimable way of measuring the immoderation that is our foundation, but also of remembering that we are strangers to ourselves." Annie Lebrun, *Perspective dépravée. Entre catastrophe réelle et catastrophe imaginaire*, Bruxelles: La Lettre volée 1991, 20.

## 16

Yves Dupont, ed., *Dictionnaire des risques*, Paris, Armand Colin 2003 (new edition forthcoming in 2006).

## 17

In an interview published in *Le Nouvel Observateur*, 2120, 23 June 2005. Some of Jean-Pierre Dupuy's recent works are: *Pour un catastrophisme éclairé. Quand l'impossible est certain*, Paris: Seuil 2002; *Penser l'arme nucléaire*, Paris: PUF 2005; *Petite métaphysique des tsunamis*, Paris: Seuil 2005.

## 18

In the framework of the First Chernobyl European Summer University which Frédéric Lemarchand and I organized in Kiev, we invited Jean-Pierre Dupuy to integrate Chernobyl into his stimulating reflection about modern catastrophes and enlightened catastrophism (see [www.unicaen.fr/colloques/tchernobyl/index.php](http://www.unicaen.fr/colloques/tchernobyl/index.php)).

## 19

Peter Sloterdijk: *Eurotaoismus. Zur Kritik der politischen Kinetik*, Frankfurt 1989, 269.

## 20

Henri-Pierre Jeudy, "Au miroir des catastrophes", in Guillaume Grandazzi, Frédéric Lemarchand, *op. cit.*, 134.

## 21

See the chapter "Panische Kultur - oder: Wieviel Katastrophe braucht der Mensch?", in Peter Sloterdijk, *op. cit.*; Henri-Pierre Jeudy, *Le désir de catastrophe*, Paris, Aubier, 1990.

## 22

i.e. those who sound the alarm, recognize the catastrophe, give it a name, and analyze it.

## 23

That it is indeed following such a course is recognized even by the most impartial observers of technical evolution, such as André Lebeau, who can hardly be called a catastrophist. In the introduction to his latest book, he writes that "we are reaching a stage where technical evolution is coming into global conflict with the survival of humanity", and ends by saying: "We are literally set to crash head-on into a wall, but nothing or nearly nothing reveals how inescapable or how violent the crash will be. What causes this blindness? Perhaps it is our tendency to interpret the first subtle signs of this phenomenon as local or temporary dysfunctions, to be corrected by local actions, rather than as the first signs of a global threat." André Lebeau, *L'engrenage de la technique. Essai sur une menace planétaire*, Paris: Gallimard 2005, 20 and 220.

## 24

Peter Sloterdijk, *op. cit.*, 112.

## 25

Peter Sloterdijk, *op. cit.*, 108, 112, 114. In a famous text published fifty years ago, John von Neumann considers the possibility of a ban on technology in industrial societies: "Only if the disasters that we fear had already occurred, only if humanity were already completely disillusioned about technological civilization, could such a step be taken. But not even the disasters of recent wars have produced that degree of disillusionment, as is proved by the phenomenal resiliency with which the industrial way of life recovered even -- or particularly -- in the worst-hit areas. The technological system retains enormous vitality, probably more than ever before, and the counsel of restraint is unlikely to be heeded." John von Neumann, "Can We Survive Technology?" in *Fortune*, June 1955, 151-152.

## 26

Christian Carle, *Du risque de fin du monde et de sa denegation*, Paris: Les Éditions de la passion 2004, 23.

## 27

*Ibid.*, 50.

## 28

Those researchers who are trying to liberate us from that denial are subjected to scientific repressions. The most tragic case is that of the Belarusian nuclear physician Professor Yury Bandayevsky, who was imprisoned for several years. See Maryvonne David-Jougneau,

"Simmelweis, Bandajevsky: des savants victimes de la répression scientifiques", in Guillaume Grandazzi, Frédérick Lemarchand, *op. cit.*, 106-118; David Marples, "Diktatur statt Ökologie. Krisenmanagement in Lukaschenkas Belarus", in *Osteuropa*, 4/2006, 117-129.

**29**

Robert J. Baker, Ronald K. Chesser, "The Chernobyl nuclear disaster and subsequent creation of a wildlife preserve", in *Environmental Toxicology and Chemistry*, vol. 19, 5/2000, 1231-1232.

**30**

Cornélius Castoriadis, *Les carrefours du labyrinthe*, Paris: Seuil 1978, 147. (English translation: *Crossroads in the Labyrinth*, Cambridge/MA: MIT Press, 1986)

**31**

Christian Carle, *op. cit.*, 13.

**32**

B. Guggenberger, "Un autre regard: le droit de l'homme à l'erreur", in J. Theys, B. Kalaora, eds., *La Terre outragée*, Paris: Diderot Éditeur 1998, 303.

**33**

Georges Balandier, *op. cit.*

**34**

Günther Anders, *op. cit.*, 22.

Translated by Mischa Gabowitsch