

Criticism, Therapeutics and Pharmacology in the New Nuclear Age

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Let me begin with some words about the beginning at the start of this encounter that will concentrate on the words we can pronounce on the present and on the future; on *what is*, with Lenin's famous formulation, *to be done*, and, equally, we might say cautiously after invoking Lenin, what is to be avoided in this conjecture of political, cultural and epistemic crisis. The words I wish to begin with might describe commonplace knowledge and are doubly tautological as they deal with the beginning itself. Around 200.000 years ago anatomically modern humans appeared in Africa. 50.000 years ago, the Upper Palaeolithic revolution occurred and ushered in what has been called "behavioural modernity". This consisted of, in short, human starting to express themselves in cultural terms, or at least in a mode of expression intelligible to, and traceable by, us. It is from this period we start finding the first musical instruments and sculptures. The Chauvet cave paintings, constituting a proto-cinema in the analysis of both Bernard Stiegler and the German filmmaker Werner Herzog, are 30.000 years old. The oldest remnants of buildings erected by humans are a mere 7000 years old and belong to the megalithic period. The oldest Egyptian pyramid now standing, the Djoser close to Memphis, is 4600 years old.

I wish to take this opportunity, at the "occupied" Épineuil, to think through a material creating a condition related both to the horizon of time and the speed of technics. This humanly produced material that I will speak about is radioactive waste. What are the implications of a poison that will remain dangerous for 100,000 years, or, in other words a time span that is so inconceivable that we might as well turn the words from the Book of Revelation used to express multitude: "ten thousand times ten thousands, and thousands of thousands" (Rev 5:11)? This material has to be stored in specially built repositories able to last, thus, almost 15 times longer than the oldest human constructions we know. Warning signs have to be written in order to attempt to communicate with civilizations situated further into the future than the first stirrings of recognizably coherent cultural expressions of human life on the planet lie in the past. In a era characterised by catastrophic short-termism, to which our reliance on nuclear energy can be seen as belonging, we are thus faced with having to consider such an absolutely long time scale that it confuses the boundaries of perpetuity and eternity, leaving us with an eternity created by man. And this regardless of whether we like the notion of nuclear power or nuclear weapons or not. The waste is there, an indestructible remnant.

It is now soon 30 years ago, in 1984, that Jacques Derrida sought to think through the nuclear weapon as a reality and nuclear conflict as a fiction in an essay entitled “No Apocalypse. Not Now” that turned towards both the Gospel of John and the Book of Revelation, arguably written by the same John. In this reflection on nuclear technology and the social organ of the literary archive Derrida also discusses the pharmakon and the use of critique. What remain less clear are the therapeutic implications of both the pharmacology and the critique, terms I imagine will occupy us during these days. This paper is part of a work in progress in which I study a shift in the pharmacology of the nuclear from the height of the Second Cold War in which Derrida wrote his essay to today. Working from the position of a critic I try to analyse the cultural artefacts, from cinema to contemporary art, that make this shift traceable. It is also my purpose to search for a position in which to reflect on the practise of criticism itself.

Derrida began his essay by substituting The Word, Logos, at the beginning, with “speed”, wishing to “say a word first about speed”, adding: “*at the beginning there will have been speed.*” He will continue to re-write the Genesis according to John through the same apostle’s vision of the Apocalypse that constitutes the last chapter of the Bible. In the beginning is the end and the end is the beginning we might add alluding to the Alpha and Omega referred to in the Book of Revelation. We find ourselves by the time barrier invoked by Stiegler in the beginning of the first volume of *Technics and Time*. It is here that technics evolves more quickly than culture and where time has “leapt outside of itself”, into the “‘machine’ or technical complex” to become speed.¹ Stiegler asks what type of shock would be produced in breaking the time barrier when speed goes faster than time. How does the temporal boom sound like? The implications, he continues, would be that speed would be older than time, a type of speed unthought by philosophy just as technics itself.

At the time of Derrida’s essay the Second Cold War stood at its zenith. Threat of total nuclear war had rarely been so present before. The holocaust survivor Elie Wiesel who knew that the impossible was possible remarked that it seemed like “maybe the whole world, strangely, has turned Jewish”.² The temporal boom would come from the first missile fired in a global thermonuclear war, and there seemed to be, in the words of Derrida, a *course de vitesse* towards the

¹ Bernard Stiegler, *Technics and Time, 1: The Fault of Epimetheus*, trans. Richard Beardsworth and George Collins (Stanford: Stanford University Press, 1998), 15.

² Jeffrey Shandler, *While America Watches: Televising the Holocaust* (New York: Oxford University Press, 1999), 204-5.

trigger.³ This condition brought Derrida to a reflection on critical speed. One should not rush into conclusions regarding speed, he advised, and first argued for a critical deceleration. At the same time there was also a pressing need to act now, least not to walk into the future as “suicidal sleepwalkers”.⁴ The need to act slowly and quickly at the same time Derrida described as an “aporia” of speed even though speed was in every sense as ambivalent as the logos Derrida had substituted it with, a logos he in *Plato’s Pharmacy* described as “at once good and bad”.⁵ In the context of the bomb the use of speed is directly tactical: rushing to the warning of “watch out, don’t go too fast”.⁶ Derrida then formulates his nuclear criticism as accelerated texts in the shape seven missile or missives in a direct reference to God’s message to the seven churches of Asia to be delivered by John according to his vision. Among the most important of the missives is the second one in which Derrida argues for that humanists, experts of texts, are eminently competent to criticise such a “fabulously textual” event such as a nuclear war: an event facilitated through human and technological communication that has not happened and therefore relies on the “sophistry of belief and the rhetorical simulation of text.”⁷

The nuclear catastrophe that humanists were competent to direct their critical apparatus towards was for Derrida the “absolute pharmakon”. Derrida refers to a textual event that was prevented for becoming reality by the enormity of its implications. It was something whose poles were impossibly entangled and without any hope or threat of that it might have time to evolve into a more recognisable pharmacological entity. He significantly invokes the notion of the absolute later when he states that the nuclear epoch is not an epoch, that is, not the knowledge at the end of history, but instead “the *époque* of absolute knowledge”.⁸ This absoluteness, which can maybe more aptly be described as the “absolute suspension” is indicative of the critical moment in which Derrida wrote. In a few minutes a nuclear missile fired from a submarine could hit any major population centre. Absolute-ness was a position in which categories of reality and fiction seemed to be obliterated by speed travelling faster than time. Rather than the nuclear constituting an ‘apotheosis of simulation’ as Jean Baudrillard claimed in 1981,⁹ it was speed had suspended time and reached an apotheosis; had become god-like in other terms. And it was maybe not that

³ Jacques Derrida, ‘No Apocalypse, Not Now (Full Speed Ahead, Seven Missiles, Seven Missives)’, trans: Catherine Porter and Philip Lewis, *Diacritics*, 14, 2 (1984): 20.

⁴ *Ibid.*, 21.

⁵ Jacques Derrida, ‘Plato’s Pharmacy’ in *Dissemination*, trans. Barbara Johnson (Chicago: University of Chicago Press, 1983), 115.

⁶ Derrida, ‘No Apocalypse’, 21.

⁷ *Ibid.*, 22-24.

⁸ *Ibid.*, 24 and 27.

⁹ Jean Baudrillard, *Simulacra and Simulation*, trans. Sheila Faria Glaser (Michigan: University of Michigan Press, 1994), 32.

the real and the fictional had been suspended in an *époque* but that the oscillations between reality of the threat and fiction of the disaster took place as such great speed that it became impossible to separate them, this leading to the construction of a profoundly psychotic era.

Where does the absolute suspension leave the nature of the pharmakon? First we might note that the Book of Revelation, just like the Gospel of John, with its antichrist or beast versus Christ polarity (or its pitting of Babylon against Jerusalem), which inspired Derrida, is a quintessentially pharmacological work. Hölderlin, drawing from the same book, wrote the following in his poem “Patmos” entitled after the island where John received his vision:

Nah ist	Near is
Und schwer zu fassen der Gott.	And difficult to understand is God
Wo aber Gefahr ist, wächst	But where danger is, grows
Das Rettende auch.	The saving [Le salutaire] as well.

This is the poem that Heidegger would come back to in his 1955 lecture “The Question Concerning Technology” and which helped him formulate the notion of the “saving power” that technology brings.¹⁰ In Derrida’s text the most important pharmacology comes, I suggest, in an unexpected place that is not the “absolute pharmakon” and this is speed rather than nuclear technics. It is speed that has the ability to produce a pharmacological outcome with critical potential as opposed to the “absolute pharmakon” that lead to the “limits of criticism”.¹¹ Both acceleration and deceleration have the ability to lead to good as well as bad results. The threat to the pharmacology lies in automation. Accelerating criticism can lead to machine-like conclusions. Decelerating criticism can turn us into suicidal sleepwalkers falling back on commonplace categories, automatic stereotypes. Reading the essay in this way is also to de-automatise Derrida’s presupposition towards the end of the same text when he appears to treat the hope of criticism with scepticism, a defeatism criticized by Stiegler in *Ce que fait la vie vaut la peine d’être vécue*.¹² It is as though Derrida, by this stage, had forgotten that he has already illustrated that a relational criticism is possible and not excluded by the implications of the absolute suspension.¹³ I need not point out that a criticism based on acceleration towards de-automation remains vital to this day to

¹⁰ Martin Heidegger, *The Question Concerning Technology and Other Essays*, trans. William Lovitt (New York & London: Garland Publishing, 1977), 28.

¹¹ Derrida, *No Apocalypse*, 30.

¹² Bernard Stiegler, *Ce que fait la vie vaut la peine d’être vécue. De la pharmacologie* (Paris: Flammarion, 2010), 72-75.

¹³ For more on “criticisme relationnel” see *ibid.*, 78.

counter what in the invitation to this event was aptly called, with another invocation of the Book of Revelation, the “*cavaliers de l’apocalypse*” that are working, though matrixes of automations, to destroy public power.

The nuclear era dominated by the threat of nuclear annihilation displayed the most extreme instance of automation to date. This was amply illustrated in the cinema of the time, if philosophy has repressed technics and made it the “unthought”¹⁴ popular culture had faced the issue repeatedly. I do not have time to get into a detailed discussion of these films here, but it suffices to say that the cinema of nuclear war in the early 1980s was deeply preoccupied with the implications of taking the human “out of the loop”. Here the machine represents speed and the human time. As long as the human is involved in decision making with its human critical faculties, that is: not acting as a robot, he or she can decelerate the process that leads to war. The process is rendered automatic when machines can give orders to machines (with the justification that the *cours de vitesse* makes it too slow to involve humans) or when humans are trained to act mechanically. With the language of Stiegler we can describe this as processed of short-circuiting. In Derrida we can see the short-circuiting at play in a sophistry, as opposed to criticism, that represents “the most crudely opinionated psychagogy, the most vulgar psychology”.¹⁵ This means that failure of criticism is also the failure of education in terms of psychagogy. If we read Derrida together with some of the most important films from the period¹⁶ as well as through Stiegler’s project we see that criticism, or a critical education, is a matter of a therapeutic de-automatising the noetic and the technical (I prefer de-automatising over de-proletarianization as it can also refer to a technical process). This critical acceleration should lead to a position that allows for the subsequent deceleration needed in the long circuit of thought. What the popular culture of the period often argued is that an acceleration towards automation with tragic certainty leads to the end or reversal of civilization, as showed in the British film *Threads* from 1984. The horrifyingly sublime moment is, tellingly, no longer the mushroom cloud but the moment your own missiles have left the silos because it is then you know that the enemy will automatically retaliate, and it is at this point that societal order collapses.

The pharmacological moment pointing towards a possible therapeutics in Derrida’s text here thus rests more in his discussion on speed than in his category of the textual. The pharmakon can only be relative. But to approach a fully pharmacological situation where criticism is part of a

¹⁴ Stiegler, *Technics and Time*, 1, ix.

¹⁵ Derrida, *No Apocalypse*, 24.

¹⁶ I am in particular thinking about *WarGames* (John Badham) and *The Day After* (Nicholas Meyer) both from 1983.

therapeutic process of care as forwarded by Stiegler it is necessary to have pharmacology of not only text and speed but also of matter. Material engagements in contemporary art show how this can be done. The use of radioactive material, by figures such as the US artist James Acord and the Swedish artist Lina Selander, gives an opening to the therapeutic potential of the radioactive, not in practical terms in health care where it is already used, but for our civilization. Though this is not to be seen as an endorsement of nuclear power, it is an argument built around the indisputable fact that a vast amount of radioactive waste already exists which needs to be disposed regardless of the future of the nuclear industry, some excess in terms of waste needs to be stored even if we learn how to recycle most of the waste already in existence. It is a reality, just like the digital condition of the present.

Before arriving to this man-made eternity we need to, briefly, trace the pharmacology of the nuclear between Derrida's text and today. After the end of the Cold War, popular cinema returned in many instances to the themes of threats exogenous to the planet as opposed to nuclear war belonging to our civilization. Something from outer space was approaching earth, asteroids, comets or aliens,¹⁷ and it had the ability to wipe out human life in no time at all just like the cancelled apocalypse of the Cold War. Between this threat and human civilization there was a familiar *cours de vitesse*. Humanity prevailed, in the end, by the judicious use of nuclear weapons directed towards what put the planet in danger. The bombs that had hitherto represented the absolute suspension, and, to speak with Derrida, the risk of the "remainderless destruction of the archive",¹⁸ had become that which saved (*Das Rettende* or *Le salutaire*). A corollary to this in general societal development was the pre-Fukushima belief in nuclear power as a way to combat global warming, an example of a short sighted response to a long term problem.

The therapeutic potential of spontaneous pharmacology in popular culture, as opposed to its critical sibling, is clearly problematic as the relativisation of the nuclear absolute after the Cold War illustrates. Nuclear weapons and nuclear energy that had previously threatened planetary civilization now became what saved the same civilization. To speak in religious terminology it was the antichrist, the beast, being put in the position of Christ, or the saviour. A clear example of a noetic automation in which that which destroyed became that which saved without the intermediate stage of reflection in a vulgarly un-critical relationship to the pharmakon. What was missing, and this is the role of criticism, was an acceleration leading to de-automation of technics

¹⁷ For example: *Deep Impact* (Mimi Leder, 1998), *Armageddon* (Michael Bay, 1998), *Independence Day* (Roland Emmerich, 1996).

¹⁸ Derrida, *No Apocalypse*, 27.

and thought, though this is a thought that knows that it can not make itself free from neither technics nor all its own modes of automation.

A discussion of nuclear technics in 2013 is not a mere reminder of the Cold War and attempts to get to grips with the legacy of that conflict. Digital automation is what challenges the status of criticism and therapeutics and constituting the horizon of speed today. While this is true the fact is, as alluded to in the beginning, that nuclear technology has given us something that will be with us to the end. This can be seen of as a gift in the full pharmacological meaning of the gift as outlined by Marcel Mauss. When discussing the etymology of gift in the Germanic languages Mauss identifies the gift as meaning both “un don” as well as a poison.¹⁹ This move reminds us of Freud’s discussion in *The Interpretation of Dreams* where the dream is said to ignore the categories of “*antithesis* and *contradiction*” or were the negative and positive sense are represented “as one and the same thing” and then later in his commentary on Karl Abel and the “Gegensinn” or contranymic meaning of primal words.²⁰ It is not my intention to get into a discussion of the complicated standing of the gift in continental philosophy, for this I recommend Gerald Moore’s excellent book *Politics of the Gift*, but it is my belief that pharmacology can be fruitfully read through this tradition all the way back to the gift of writing offered to Thamus by Theuth in Plato’s *Phaedrus*. But first of all I need to explain the counter-intuitive proposition: that nuclear waste is anything *but* a poison.

In *Given Time* (Donner le temps) Derrida puts Mauss’s late aside on the gift as also meaning poison at the very beginning of his exposition, making it stand for the reversal of the good (pun intended) into something bad.²¹ In what now seems like a familiar move Derrida then seeks to go beyond the relative pharmakon to the absolute which in many ways seizes to be pharmacological. For a gift to be only a positive gift and not a poison it has to not be “perceived to received as a gift”, neither the donor nor the donee must have any consciousness of the gift, nor any memory or recognition.²² Derrida is so vested in cancelling the poisonous part of the gift to get to a true gift outside of economy, a completely ethical gift, that he states that Mauss’s pharmacological gift is not a gift.²³ But the end result of this search of a “a gift without ambivalence”²⁴ leads us back to

¹⁹ Marcel Mauss, *Essai sur le don*, Chapitre III. Droit germanique

²⁰ Sigmund Freud, ‘The Antithetical Meanings of Primal Words’ in *Writing on Art and Literature* (Stanford: Stanford University Press, 1997), 94.

²¹ Jacques Derrida, *Given Time*, trans. Peggy Kamuf (Chicago: University of Chicago Press, 1994), 12.

²² *Ibid.*, 16.

²³ *Ibid.*, 24.

²⁴ *Ibid.*, 36.

the fabulously textual, at the margins of the describable that has not yet happened, in other words back to the territory of the messianic. The focus on the textual as a site of pure *différance* becomes a way out of the specificity of pharmacology, which in other words also implies a turning away from therapeutic action. This further undermines the role of the practice of criticism if we see it concerned with the turning of pharmacological processes towards the therapeutic, or curative, end.

The only thing that the gift of Mauss, the ambivalent gift, gives according to Derrida is the time implied in the economic, or social, bond between giver and receiver.²⁵ The gift of time is crucial when considering the “gift” of nuclear waste whose radical poison relies not in its imposition of a counter-gift but on the mere necessity of us, the receivers, handling the material itself. The social bond implied in the gift has a dimension of time that can hardly be fathomed. It is not a coincidence that Werner Herzog, in his documentary about the 30.000-year-old Chauvet cave paintings ends by a poetic digression to a nearby nuclear power station. Just as Chauvet is a proto-cinema to Herzog’s cinema the nuclear, as an even more refined form of technics, opens up an extremely long-term time scale towards the future. Another documentary, Michael Madsen’s *Into Eternity* from 2010, is shaped partly as an epistolary attempt at communication with a future civilization that encounters the nuclear trace from ours. The film, centred on the construction of a nuclear repository in the Finnish bedrock, repeatedly returns to the generational bond to the future that the poisonous gift demands. The conceptually most challenging task of the Finnish engineers is to try to devise warning signs that can be understood not only in a thousand years, but also in a hundred thousand years. For these to last as long as the nuclear waste and be legible they are made to look like the carved signs we associate with the upper Palaeolithic period of Chauvet.

One of the forerunners in thinking pharmacology through radioactive material was the US sculptor James Acord who also worked on warning signs for radioactive waste repositories. To make these as durable as possible he used radioactive material in the sculptures themselves. His starting position was that sculpture “deals with the technology of our society at any given time”.²⁶ Just as the carvers of stone that produced the first Venus figurines, he took the tools and material that his society had at its disposal. Provocatively his aim was also to do something beautiful with the poisonous gift, in incorporating radioactive material into his art. Along with warning signs he

²⁵ Ibid., 41.

²⁶ ‘James Acord: Atomic Artist’ in *Nuclear News*, Nov. 2002, 50-58.

also made reliquaries and this link between the radioactive techne and the trace has been taken further by the Swedish artist Lina Selander who in recent years has made a number of works exploring fossils, photographic imprint and radioactivity. Selander carefully avoids an overtly aesthetic approach to radioactivity, her works feature visits back to the horror in nuclear sites such as Chernobyl and Hiroshima, but she does use radioactive material, for example placed upon photographic paper bridging the status of the nuclear as a material trace and a trace in our culture of the image. We again return to the notion that man-made radioactive material is there whether we wish it to be or not, automation via technics can also express itself as foreclosure, repression and forgetfulness.

The examples of films and art approaching a new nuclear epoch that is exactly that and not an *époque* constitute critical accelerations towards de-automation and a re-establishing of a pharmacological situation, even in this most extreme example of a truly poisonous gift. They make us able to think in terms of therapeutics. The social bond implied in the extreme gift of time demands a transmission of generational knowledge that cannot be left to private interests, such as an industry, as the risk then would be a convenient forgetting. An entirely new set of demands have also been raised in the building of the nuclear repositories, not only the linguistic challenge of communicating with the future but also the material knowledge of constructing extremely durable sites. All this is motivated by a sense of responsibility. When there is no doubt that the gift is poisonous we can also speak of a moral debt in the moment of giving it.

Thinking through the nuclear leads us to a gift of time and a debt implied in the giver and not merely in the receiver. There is thus scope for a new moral economy that can help us in understanding what type of gift giving we pass on to coming generations by merely passing on the current socio-economic conjecture. Pharmacology through the nuclear underlines the necessity of critique and then, subsequently, of the establishment of societal projections into the future. This last stage is only possible if pharmacology goes beyond the textual dimension in Derrida and engages with the present material condition. The discussion of the nuclear condition that I have attempted here can be seen as an extreme manifestation of something that is also applicable to the digital condition of late capitalism. To paraphrase Hölderlin we might say that *where the most extreme danger is, grows / that which has the greatest potential to save*. Long-term disposal of nuclear waste would necessitate a planetary responsibility in economic, political and technological terms, something that is equally true for other poisonous gifts such as global warming or the systematic destruction of attention.

The extreme speed of the nuclear condition in the 1980s has thus lead to a situation in which, paradoxically, the nuclear of today represents an immense time-scale. The price is the poison. I would suggest, in conclusion, that the digital condition can, through an accelerated critique, be brought from the reign of speed to the hope of time and that this process does not have to create as much of a debt, or guilt to invoke another Germanic word-play: *schild*, in the giver as our nuclear adventure has generated. And the hope of time, as opposed to the messianic beyond, is eminently grounded in the concrete material and concrete politics, even if it points towards a hundred thousand years into the future.