

Dromologic Revolution and Dromospheric Chronology

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Abstract

In many of his texts French cultural critic, city planner and philosopher Paul Virilio emphasises that speed is not a phenomenon, but a relation between phenomena. The difference between contemporary society and societies of the past consists in the fact that earlier speed used to be mainly connected with transport, now it concerns relations within information. The question of speed is central. Speed and wealth go hand in hand. To give a philosophical definition of speed, we can say that it is not a phenomenon, but rather the relationship between phenomena. In other words, it is relativity itself. Virilio's influential books analyses new problems resulting from the fact that the development of industrial capitalism has reached the stage in which wealth and power in society have been interconnected with ever increasing speed. In view of Virilio's statement that wealth is an aspect of speed it has become necessary to consider speed and all its aspects and consequences through a prism of a new discipline – dromology. Dromology originates from the Greek word *dromos*. Hence dromology is the science of the ride, the journey, the drive, the way. This means that speed and riches are totally linked concepts. And that the history of the world is not only about the political economy of riches that is, wealth, money, capital, but also about political economy of speed. Text analyzes the two main themes. Firstly, the treatise attempts at a philosophical analysis OD – dromology. Dromologic revolutions cause artificial acceleration of speed in the form of steam or combustion engine, or, nowadays, nuclear energy and they immediately form both e.g. waging wars and kinds of communication. The second part of the study discusses the difference between contemporary society and societies of the past. Vehicles of speed create new dromospheric chronology, new tracks and nodal points (ports, roads, airports, telecommunications etc.) through which things; goods, money, weapons, people or information will start flowing within a different structure.

Keywords: Disaster; Speed; Accident; Dromospheric chronology; Dromology; Uncertainty

Introduction

In the third chapter of the book *Polar Inertia*, Virilio presents one of variations on the topic – what is speed as follows: “For if speed is not phenomenon, but only relation between phenomena (relativity itself), we might adapt Bernard de Clairvaux by stating that light is the name for shadow of absolute speed, or to be more precise, that the speed of rays of light is the name for the shadow of the speed of light of electromagnetic waves. We would be led to conclude that speed is useful for seeing, but above all that it makes “light” visible even before the object (or phenomena) that it illuminates. This precisely is the dromosphere. Not so much expansion of the universe brought to light by the famous red shift in the spectrum, but a purely relativistic recognition, that it is speed which enlightens the universe of perceptible and measurable phenomena [1]. Concerning speed, in the book *Pure War* Virilio claims as follows: “Speed is the unknown side of politics, and has been since the beginning, this is nothing new. The wealth aspect in politics was spotlighted a long time ago. One usually says that power is tied in with wealth. In the authors’ opinion, it’s tied and foremost with speed. Wealth comes afterward. People forget the dromological dimension of power, its ability to inveigle, whether by taxes, conquest, etc. Every society is founded on a relation of speed. Every society is dromocratic [2].

In modern society, moral values, aesthetic standpoints and substantiations solving various social dilemmas and conflicts were

linked both to real space and historical time. Space and time are basic ontologic categories. Dromologic analysis considerably changes its content. It discovers their new dimension emerging thanks to the absolute speed of information translation. In other words, continuing modernization, which is according to Virilio one of the consequences of speed, constructs its new dimensions of space and time: dromologic telecopy and dromospheric chronology. Surprisingly, it is possible to live, communicate, do business, become rich, love, acquire higher share in power and even wage war in these new dimensions of time and space. Another floor of society's life emerges. Nowadays, speed of development in society is more and more linked mainly to dromocratic telecopy, i.e. the ability and readiness to get connected. As Jean Baudrillard observed, the classical *esse est percipi* has been replaced by to be is to be connected. Not from a historically determined territory, but from anywhere wheresoever – and the last two expressions cannot be further specified. It is a new floor in what the Greek called *oikos*. Old floors have not disappeared, they are only inhabited in a different way and mainly – they will be inhabited in a different way and life will be different there. Wealth and power are an aspect of speed. The distribution of wealth and power, which, to a large extent, unfortunately also means the distribution of happiness and health, is increasingly subjected to new dromospheric chronology based in dromocratic telecopy of networks. With the arrival of mass industrial production of speed (means of transport, the media...) we move more and more in the virtual world, thus moving away from the real world. Virilio puts it simply that “collective thinking established by various telematic vehicles aimed at destructing original perceptions”. In 1934 Walter Benjamin interrogates this photographic object, incapable of registering a barracks or a pile of garbage without transforming

them. Transforming everything abject about poverty, it's transformed it also into an object of pleasure [3]. In the world of mediated images heralded in the media, the original model loses its trustworthiness. Virilio thus points out frequently less visible negative impacts of the virtual sphere expansion. Loss of trust in "eye reality", i.e. in what we can see with our own eyes, and ever higher dependence on illusory view constructed by means of technological devices. As the author states, to hypnotize the masses, it is necessary to speak mainly to eyes. Abel Gance loved quoting Napoleon: To magnetize masses, you must above all talk to their eyes," and he affirms that the future of the movies is a sun in each image [3]. Virilio also ponders on how technology affects human conscience and sensory experience when conscience as direct perception of phenomena disappears due to high technical speed which destroy time and space

We find ourselves in a situation comparable to the time of our ancestors, when new railways tracks were built and railways were extended, when the migration routes were changing according to new diggings of fossil fuels and other raw materials, when urban agglomerations emerged around coking plants and ironworks. Nowadays, networks are extended and handling information is getting faster. Undoubtedly, it will have epoch-making importance for the process of transferring ethical standpoints, like the events of that time. Virilio's dromologic analyses need attentive and slow reading. The author's strong point is the ability to find relations among phenomena that are not seemingly related, Even if not all these connections can be considered relevant and convincing. Metaphors and discursive strategies presented by Virilio are indisputably elaborated and original. They reveal interesting parallels, thus enriching our social imagination. In the last century we had already become aware of the paradox of speed. The train doesn't make voyagers of us but packages that are expedited... remarked Tolstoy. The hurried man of Morand ruminates. We need to find something even more idiotic to block the course of time completely, total abstention from all action. To say today that speed is obsolete is an untruth as obvious as that which consists in praising slowness [3]. Speed, we are still captured by speed.

At the beginning of human history, there was only slowness – slowness of life of agricultural society. Speed was created by people - merchants, soldiers, industrialists, scientists, engineers, computer scientists, bankers, etc. The present-day Identification with the speed may lead us to many different conclusions. The speed of our world is full of contradictions; the accelerated world conceals quite a few paradoxes. Most speed phenomena seem reasonable at first glance and usually it is actually the case. This applies particularly to those devices and equipment that we use every day - from cars and Velcro over Fast Food and email, to our computer and particle accelerators. Their formation is understood as a response to the clearly defined need, their further development as a useful improvement. In today's life, it is only speed that counts, and nothing else. The question how much speed one needs and what rate of acceleration is tolerable for the economy, society and environment, remains unanswered. Speed began to gain positive value in the late 19th century. Dromology by P. Virilio seeks to analyze the ways that were crucial for the development of speed. He asks how the principle of acceleration in Central and Western Europe arose and explains the origin and method of spreading "various triggers of speed". Virilio's theory shows the far-reaching extent to which the speed conquered all and everything over the centuries: transportation and production, peace and war, men and women, urban and rural areas, work and leisure time, arts and commerce. Virilio clearly shows us how the principle of acceleration of the word has taken root in professional and private lives of individuals and societies

in both good and bad sense, and how it has changed and continues changing our standards, values, perceptions and mentality.

The development of high technical speeds would thus result in the disappearance of consciousness as the direct perception of phenomena that inform us of our own existence. Cinema is not a seventh art but an art that combines all of the others: drawing, painting, architecture, music, but also mechanical, electrical works etc. [3]. Dromological research by Paul Virilio present a critical analysis of the consequences for our perception and logistics caused by polar inertia, inertia of absolute speed. Speed changes the field of our perception because it transforms the habitual understanding of ontological characteristic of reality, i.e. time and space. Speed treats vision like its basic element; with acceleration, to travel is like filming, not so much producing images as new mnemonic traces, unlikely, supernatural. In such a context death itself can no longer be felt as mortal; it becomes, as in William Burroughs, a simple technical accident, the final separation of the sound from the picture track [3]. What is much more important for Virilio's concept of aesthetics of disappearance is the role of unconscious disappearing of objects from our field of perception, aesthetics of disappearing, one of the consequences of dromology, is based on studying cinematographic effects coming from the area of art, film, television and video. What is given to see is due to the phenomena of acceleration and deceleration in every respect identifiable with intensities of light [3]. Philosophic background of Virilio's theory is neither G. Marcel's French existentialism, nor postmodernism, which is unequivocally refused by Virilio, mainly as far as architecture is concerned, surprisingly it is phenomenology in M. Merleau-Ponty's interpretation. Postmodernism is a notion that makes sense in architecture, through the work of Robert Venturi and so on. Since the author has been teaching architecture, to me, postmodernism is a suitcase word, a syncretism [4].

Virilio summarizes his teacher and mentor Merleau-Ponty's influence on him as follows: "First of all, the author was a pupil of Merleau-Ponty, of Jean Wahl and of Vladimir Jankelevitch, to name three French philosophers who were teaching at the Sorbone at that time. The one to which the author felt most attracted was quite naturally Maurice Merleau-Ponty, and his Phenomenology of Perception [4]. In many of his texts Virilio emphasises that speed is not a phenomenon, but a relation between phenomena. The difference between contemporary society and societies of the past consists in the fact that earlier speed used to be mainly connected with transport, now it concerns relations within information. "The question of speed is central. Speed and wealth go hand in hand. To give a philosophical definition of speed, we can say that it is not a phenomenon, but rather the relationship between phenomena. In other words, it is relativity itself. Virilio's influential book - Speed and Politics, analyses new problems resulting from the fact that the development of industrial capitalism has reached the stage in which wealth and power in society have been interconnected with ever increasing speed. In view of Virilio's statement that wealth is an aspect of speed it has become necessary to consider speed and all its aspects and consequences through a prism of a new discipline – dromology.

Great Movement of Progress

The gradual spread of catastrophic events considerably affects the reality of the moment and it causes anxiety and anguish for generations to come. Unexpected and catastrophic events, all accidents, from the most banal to the most tragic, from natural catastrophes to industrial and scientific disasters, make people

powerless. As Aristotle said, the accident reveals the substance. If this statement is true, then invention of the substance is equally invention of the accident. The air crash is consequently the futurist invention of the supersonic airliner, just as the Chernobyl meltdown is the invention of the nuclear power station. When we take a look at recent history, the twentieth century was the century of great exploits, some of the most significant ones are for example the moon landing, great discoveries in physics and chemistry or computer science and genetics. However, the twenty-first century, in turn, reap the harvest of this hidden production constituted by different disasters. The twentieth century did in fact swamp us with mass-produced accidents one after the other.

According to Valéry's postulate: If consciousness only survives now as awareness of accidents, and if nothing functions except outside consciousness, the loss of consciousness about accidents as well as major disasters would not only amount to unconsciousness but to madness – the madness of deliberate blindness to the fatal consequences of our actions and our inventions [5]. In contrast to the natural accident, the artificial accident results from the innovation of a motor or of some substantial material. If the substance is absolute and essential to science and if the accident is relative and contingent, we can identify the substance at the beginning of specific fields of knowledge and the accident at the end of the philosophical intuition. Creation or collapse, the accident is an unconscious oeuvre, an invention in the sense of uncovering what was hidden, just waiting to happen [5]. Accident is inseparable from the speed [4]. Virtual speed of unexpected and catastrophic events should be studied instead of the actual speed of objects. As we try to protect ourselves from excess in real speed by means of breaks and automated safety systems, we have to try to protect ourselves from excess in virtual speed, from what unexpectedly happens to substance – meaning to what lies beneath engineer's awareness as producer. In Aristotle's *Physics*, it is indeed the passage of time, in other words the speed which destroys and achieves the ruin of all things, and every substance becomes a victim of the accident in the traffic circulation of time.

The production of accidents is connected with the sudden militarization of the sciences, most notably, the fatal invention of weapons of mass destruction and a thermonuclear bomb capable of extinguishing all life on the planet. The visible speed of the substance (that of the means of transport, of computing, of information) is only the tip of the iceberg of the invisible speed of the accident. The speed with which accidents surge up, plunges humankind into mourning and powerlessness. We have to try as fast as possible to define the flagrant nature of disasters peculiar to new technologies. According to Hannah Arendt, Progress and disaster are two sides of the same coin [5]. Lately, the accident argument has become one of the mass media's pet themes, the confusion between sabotage and breakdown on the one hand, and between the suicide bombing mission and the industrial or other accident on the other hand. Since the start of the twentieth century up to the present day we can see the increase in the number of catastrophes. Artificial accidents have outstripped natural accidents. Suddenly, an accident is no longer unexpected event. It turns into a rumour. One of the case of catastrophic event is that one which emerges in terrorist dimension. There is the confusion between the genuine accident occurring unexpectedly to a substance and the strategy of a malicious act. Whence the gravity of the New York attack, which calls into question not only the United States's status as a sanctuary, but also the boom in the major airlines and the liberalization of tourist flows, to say nothing of the catastrophic impact

of the collapse of the Twin Towers on the comprehensive insurance market [5].

From such catastrophic events, people face with the ubiquity of risk, often even of a major risk of disaster for humanity. The issue of fear becomes crucial. The speed at which the unknown has been growing expands or intensifies fear [6]. Screens have capability to invade the imaginary of populations and perfectly typify the globalization of affects, they act as synchronization of collective emotions greatly favouring the administration of fear. In the near future, this administration of emotions and fear could be run by the movie industry and the mass media replacing the public space of our daily lives. One of the examples is an information accident, in other words, brainwashing designed to sow doubt about the truth of the facts, thereby creating anxiety over diffuse threats whereby any disturbance in perception of events always reinforces the anguish of the masses. Suicide bombing or accident? Information or desinformation? From now on, no one really knows [5]. This example is just one among many. People confronted by this chain of media events, each one more catastrophic than the last, should ask question about the dramatization that has been taking place since the beginning of the twenty-first century? With television, which allows hundreds of millions of people to see the same event at the same moment in time, we are finally living through the same kind of dramatic performance as at the theatre in days not long gone [5]. The next example is from the field of politics. Nowadays, there is no difference between politics and show business anymore. It is the performance that persuades people that the candidate is sincere. If inventing the substance means indirectly inventing the accident, then, the more powerful and high-performance the invention is, the more dramatic the accident is. This statement was evidently confirmed for people throughout the twentieth century with the invention of nuclear and thermonuclear weapons that are ultimately unusable. The accident presents in this case the panicstoking uselessness of this type of weaponry. Friedrich Nietzsche wrote in his book, *The Birth of Tragedy: A culture built on science must necessarily perish when it starts to become illogical, that is, to recoil before its own consequences*. Our Art reflects this general crisis [5].

The sudden militarization of science is considered to be necessary to the presumed victory in war. Human power then transforms itself into a cause of ruin, toppling the nations into destruction. This progress in knowledge, from progress in genetics and computer science to the atomic progress, of which Chernobyl, in the wake of Hiroshima, has revealed to us the atrocious truth. This statement perfectly sums up the paradox of the twentieth century: Today, at the very dawn of the twenty-first century, when much-vaunted globalization is nothing if not the forbidden fruit of the tree of knowledge – in other words, of the so-called information revolution – the exterminator takes over from the predator, just as terrorism takes over from the original capitalism [5]. Extermination became the illogical outcome of accumulation. In fact, we can say that this is the accident in knowledge that now rounds off the accident in substances deriving from technoscientific research. If matter has three dimensions, mass, energy and information, then, after the series of accidents in materials and energy over the past century, the accident is upon us. We should ask ourselves these three questions: Should science reassure? On the contrary, should science frighten? Is science inhuman? Scientific and technical knowledge has many outcomes – radioactive fallout from Chernobyl, genetically modified organisms, reproductive human cloning following on from animal cloning, and this list goes on. The accident in knowledge is impressive not so much in terms of the number of victims but in the very nature of the risk run [5]. Nowadays, there are many threats to

human life such as medically assisted procreation, the right to assisted death and euthanasia, not to mention biological weapons.

Another warning involves the pollution. Alongside the pollution of substances, such as air, water, fauna, flora, there is, at the start of twenty-first century, the sudden pollution of distances and of the intervals that make up the very density of our daily reality, of this real space of our activities. George Bernanos once wrote: Luck is like us. Indeed, if once upon a time life was still a theatre, a stage with its transforming sets; daily life has now become sheer luck, a never-ending accident, with its many new developments, the spectacle of which is inflicted on us at every moment via our screens [5]. The accident has suddenly become habitable to the detriment of the substance. We can call it integral accident, the accident that integrates us globally and sometimes even disintegrates us physically. In our world, where everything is explained, the accident still remains unexpected, truly surprising and the unknown quantity. Albert Einstein once said that events don't happen, but they are there and people merely encounter them in passing, in an eternal present. There aren't minor incidents on the way, history represents just one long chain reaction. Nagasaki, Hiroshima, Chernobyl are simply instances of momentary inertia and the radioactivity of a place is analogous to the relativity of an instant. The word accident comes from the Latin word *accidens*, this word signifies what arises unexpectedly in a device, system, or product. It means the unexpected, the surprise of failure or destruction. There are many controversial theories how to avoid accidents that arise from our technological innovations and discoveries. One of them is to directly invent the accident in order to then determine the nature of the famous substance of the product or device discovered. The issue is if people could in this way avert the development of certain supposedly accidental catastrophes. One of the causes of development of tools of destruction is doubtless the scientific and industrial production machine that is the main source of absolute accident that is war – the conflict in all societies over the centuries, great war of time.

Great movement of progress of the nineteenth and twentieth centuries is surely one of the most insidious features covering up the fearful progression, as much industrial as military, in the mode of scientific destruction. The scientists dealing with weapons have become the alchemists of our times. They are working in secret ways, they may never have been in battle, may never have experienced the devastation of war, but they know how to devise the means of destruction. Science has become the arsenal of major accidents. Currently, what is undermined and everywhere contaminated is science, the whole set of our knowledge literally poisoned by an arms race in weapons of mass destruction that is infesting what we learn and will, if we are not careful, shortly decommission science, making it unavailable to do good [5]. We are living in a world where were endlessly confronted with globalisation. We can no longer escape a global dimension to being [7]. What people put on the screen is the technical consciousness, whereas the unconsciousness is the mass of the information circulating within the world of real space at the speed of real time. The hours will pass, but science will continue to grow [7]. This motto illustrates the notion that science is a lesson in time. Time, which either fades away or which we sum up thanks to History. As Winston Churchill pointed out at the end of the 1930s, we are entering the period of consequences [3]. These consequences not only determine the politics of nations but also the science, the human sciences along with the whole panoply of our knowledge. If science was once a lesson in passing time as well as in the growth of progress, now it is turning into the science of the weather. The uncertain nature of a climate has become the issue of many scientists.

There are many who claim that global warming is catastrophic for the climate. Meteorology has become a very lucrative business for people. However, climatologists' don't have a clue what's going to happen because the climate is unpredictable since there is no forecast model that works. There are also other sciences dealing with the issue of climate. One of them is geo-engineering trying to counteract global warming artificially, which involves extremist practices that aim to innovate in the future a universal air conditioning system able to cool down the planet. But for some other climatologists it is hard to evaluate consequences of such largescale manipulation and they are pessimistic about the effectiveness of such measures. This issue of global warming is just one example of consequence among many other consequences resulting from the progress in science. The twentieth century is considered to be the century when people have entered a period of consequences and they have to find effective solutions to save population. The progress in science and technology has resulted in acceleration of time and of everything around us. Nowadays, tendency of adolescents is to opt for chat rooms to maintain contact with others and to form relationships over the internet. The firms such as Google or Yahoo have made this kind of instant messaging service available to people. This proximity without promiscuity has become a market where proximity stops meaning "here" and turns it into the meaning over there. Objectivity is transformed into the tele-audiovisual objectivity and face-to-face contact is via an interface, through the view of screens. Warning for people is the loss of sight. The gradual narrowing of the visual field to the frame of the screen can result in eye disease that reduces our lateral vision and that goes by the name of glaucoma. This disease is irreversible and most often painless, it causes a number of optical data to disappear one by one and it can even develop into total blindness. This disease achieves a sort of furtive iconoclasm not of pictorial imagery any more, but of objective ocular imagery and it thereby affects our mental imagery and so our subjectivity – to the instrumental, teleobjective imagery.

According to Maurice Merleau-Ponty: After all, the world is around me, not in front of me, the author inhabit it. To suppress, as does the shutter of the screen of a so aptly named terminal, not only lateral vision, but also the countryside, the land around, is to deprive all customary reality of relief and to experience a disastrous reversibility of dimensions, in particular of the depth of perspective. There is no distance anymore, we are so close to things, they no longer concern us at all [7]. Our world has become a foreclosed world by the temporal compression of realist acceleration. This sudden reversal in our relationship to the world around us, a result of the acceleration of a real time that dominates, it demands training, formation and sort of telescopic education. This is required from the moment the child comes into the world, now accompanied not so much by his parents as by the screen relations that will surround him as an adolescent and as a grown-up in days to come. In 2006, the very first television channel for babies saw the light of day in Europe. Offering cartoons, nursery rhymes, games and documentaries, this channel pushing desensitisation to and embrace of the acceleration of reality trains the baby in the optically correct perception that will evolve into the aesthetics of his years as a grownup. It thereby promotes toddlers addiction to the small screen, at the same time as it claims to be protecting those toddlers by drawing the parents' attention to the risks of their progeniture's habituation to the specialised channel's hypnotic effects [7]. This is happening today even though parents are strongly advised not to leave their very young children in front of the TV. Camille Flammarion may be considered the prophet of this society of accelerating reality which was to lead to the on-line society of

instantaneous telecommunications in the twentieth century. As the theologian Dietrich Bonhoeffer wrote: Time is the cycle of light [7]. However, this cyclical time of seasons and days is now doubled by the real time of an instantaneity that is the cycle of the speed of light waves which convey the information of image and sound. The phrase from Joseph Losey's film *The Damned*, accurately illustrates contemporary world: It's too late to have a private life [7-10]. We live in the age of general interactivity where electronic cooperation and collective intelligence could turn humanity as a social corpus not into single people, but into a single mass media corpus.

Conclusion

Progress and disaster are two sides of the same coin. Accident is inseparable from the speed. Virtual speed of unexpected and catastrophic events should be studied instead of the actual speed of objects. As we try to protect ourselves from excess in real speed by means of breaks and automated safety systems, we have to try to protect ourselves from excess in virtual speed, from what unexpectedly happens to substance – meaning to what lies beneath engineer's awareness as producer. In Aristotle's *Physics*, it is indeed the passage of time, in other words the speed which destroys and achieves the ruin of all things, and every substance becomes a victim of the accident in the traffic circulation of time. The visible speed of the substance (that of the means of transport, of computing, of information) is only the tip of the iceberg of the invisible speed of the accident. The speed with which accidents surge up, plunges humankind into mourning and powerlessness. We have to try as fast as possible to define the flagrant

nature of disasters peculiar to new technologies. Virilio's texts deal with the impact of speed, disaster and accident on the contemporary world. The word accident comes from the Latin word *accidens*, this word signifies what arises unexpectedly in a device, system, or product. It means the unexpected, the surprise of failure or destruction. There are many controversial theories how to avoid accidents that arise from our technological innovations and discoveries. Speed and accident creates a new form of uncertainty in society, creates new dromologic revolution and dromospheric chronology.

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