

Ctheory Interview With Paul Virilio

The Kosovo War Took Place In Orbital Space

[Paulo Virilio in Conversation with John Armitage](#)

Translated by Patrice Riemens

Paul Virilio is a renowned urbanist, political theorist and critic of the art of technology. Born in Paris in 1932, Virilio is best known for his 'war model' of the growth of the modern city and the evolution of human society. He is also the inventor of the term 'dromology' or the logic of speed. Identified with the phenomenology of Merleau-Ponty, the futurism of Marinetti and technoscientific writings of Einstein, Virilio's intellectual outlook can usefully be compared to contemporary architects, philosophers and cultural critics such as Bernard Tschumi, Gilles Deleuze and Jean Baudrillard. Virilio is the author, among other books, of *Bunker Archeology* (1994 [1975]), *Speed & Politics: An Essay on Dromology* (1986 [1977]), *The Information Bomb* (2000 [1998]) and, most recently, *Strategie de la deception* (1999). His analysis of the Kosovo War is the subject of his conversation with John Armitage below.

John Armitage: Professor Virilio, to what extent does your intellectual and artistic work on the architecture of war, and architecture more generally, inform your thinking in *Strategie de la deception*? Is it the case that, in common with other so-called 'postmodern' wars, such as the Persian Gulf War in 1991, the architecture of war, along with architecture itself, is 'disappearing'? How did you approach the question of the architecture of war and its disappearance in *Strategie de la deception*?

Paul Virilio: Well, let me put it this way, I have always been interested in the architecture of war, as can be seen in *Bunker Archeology*. However, at the time that I did the research for that book, I was very young. My aim was to understand the notion of 'Total War'. As I have said many times before, I was among the first people to experience the German Occupation of France during the Second World War. I was 7-13 years old during the War and did not really internalise its significance. More specifically, under the Occupation, we in Nantes were denied access to the coast of the Atlantic Ocean. It was therefore not until after the War was over that I saw the sea for the first time, in the vicinity of St Nazaire. It was there that I discovered the bunkers. But what I also discovered was that, during the War, the whole of Europe had become a fortress. And thus I saw to what extent an immense territory, a whole continent, had effectively been reorganised into one city, and just like the cities of old. From that moment on, I became more interested in urban matters, in logistics, in the organisation of transport, in maintenance and supplies.

But what is so astonishing about the war in Kosovo for me is that it was a war that totally bypassed territorial space. It was a war that took place almost entirely in the air. There were hardly any Allied armed personnel on the ground. There was, for example, no real state of siege and practically no blockade. However, may I remind you that France and Germany were opposed to a maritime blockade of the Adriatic Sea without a mandate from the United Nations (UN). So, what we witnessed in Kosovo was an extraordinary war, a war waged solely with bombs from the air. What happened in Kosovo was the exact reversal of what happened in 'Fortress Europe' in 1943-45. Let me explain. Air Marshall 'Bomber' Harris used to say that 'Fortress Europe' was a fortress without a roof, since the Allies had air supremacy. Now, if we look at the Kosovo War, what do we see? We see a fortress without walls but with a roof! Isn't that disappearance extraordinary?!

John Armitage: Let's talk about your theoretical efforts to understand and interpret the Kosovo war in *Strategie de la deception*. Is the campaign in the air the only important element that other theorists should pay attention to?

Paul Virilio: Let me emphasise the following points about the Kosovo War. First, while the United States (US) can view the war as a success, Europe must see it as a failure for it and, in particular, for the institutions of the European Union (EU). For the US, the Kosovo War was a success because it encouraged the development of the Pentagon's 'Revolution in Military Affairs' (RMA). The war provided a test site for experimentation, and paved the way for emergence of what I call in *Strategie de la deception* 'the second deterrence'. It is, therefore, my firm belief that the US is currently seeking to revert to the position it held after the triggering of atomic bombs at Hiroshima and Nagasaki in the 1940s, when the US was the sole nuclear power. And here I repeat what I suggest in my book. The first deterrence, nuclear deterrence, is presently being superseded by the second deterrence: a type of deterrence based on what I call 'the information bomb' associated with the new weaponry of information and communications technologies. Thus, in the very near future, and I stress this important point, *it will no longer be war that is the continuation of politics by other means, it will be what I have dubbed 'the integral accident'* that is the continuation of politics by other means. The automation of warfare has, then, come a long way since the Persian Gulf War of 1991. Needless to say, none of these developments will help the plight of the refugees in Kosovo or stop the actions of the militias operating there. However, the automation of warfare will allow for the continuation not only of war in the air but also of the further development of the Pentagon's RMA in the form of 'Global Information Dominance' (GID) and 'Global Air Power' (GAP). It is for these reasons that, in my new book, I focus for example on the use of the 'graphite bomb' to shut off the Serbian electricity supply as well as the cutting off of the service provision to Serbia of the EuTelSat television satellite by the EU. And, let me remind

you that the latter action was carried out against the explicit wishes of the UN. To my mind, therefore, the integral accident, the automation of warfare, and the RMA are all part of the shift towards the second deterrence and the explosion of the information bomb. For me, these developments are revolutionary because, today, the age of the locally situated bomb such as the atomic bomb has passed. The atomic bomb provoked a *specific* accident. But the information bomb gives rise to the integral and *globally constituted accident*. The globally constituted accident can be compared to what people who work at the stock exchange call 'systemic risk'. And, of course, we have already seen some instances of systemic risk in recent times in the Asian financial crisis. But what sparked off the Asian financial crisis? Automated trading programmes! Here, then, we meet again the problems I noted in earlier works with regard to interactivity. Moreover, it is clear that the era of the information bomb, the era of aerial warfare, the era of the RMA and global surveillance is also the era of *the integral accident*. 'Cyberwar' has nothing to do with the destruction brought about by bombs and grenades and so on. It is specifically linked to the information systems of life itself. It is in this sense that, as I have said many times before, interactivity is the equivalent of radioactivity. For interactivity effects a kind of disintegration, a kind of *frupture*. For me, the Asian financial crisis of 1998 and the war in Kosovo in 1999 are the prelude to the integral accident.

John Armitage: How does your description above of the chief theoretical aspects of the Kosovo War map on to the important themes of your previous writings? I would like to start by charting your theoretical and architectural interest in questions concerning the two concepts of military space and the organization of territory. For example, even your earliest research into the 'Atlantic Wall' in the 1950s and 1960s was founded on these two concepts. However, before we discuss *Strategie de la deception* and the war in Kosovo in some detail, could you explain first of all what you mean by military space and the organization of territory and why these concepts are so important for an understanding of your work?

Paul Virilio: These concepts are important quite simply because I am an urbanist. Thus the whole of my work is focused on geopolitics and geostrategy. However, a second aspect of my work is movement. This, of course, I pursue through my research on speed and on my study of the organisation of the revolution of the means of transportation. For me, then, territory and movement are linked. For instance, territory is controlled by the movements of horsemen, of tanks, of planes, and so on. Thus my research on dromology, on the logic and impact of speed, necessarily implies the study of the organisation of territory. Whoever controls the territory possesses it. Possession of territory is not primarily about laws and contracts, but first and foremost a matter of movement and circulation. Hence I am always concerned with ideas of

territory and movement. Indeed, my first book after *Bunker Archeology* was entitled *L'insecurite du territoire* (1976).

John Armitage: In *Speed & Politics: An Essay on Dromology*, you write of the military and political revolution in transportation and information transmission. Indeed, for you, the speed of the military-industrial complex is the driving force of cultural and social development, or, as you put it in the book, 'history progresses at the speed of its weapons systems'. In what ways do you think that speed politics played a role in the military and political conflict in Kosovo? For instance, was the speed of transportation and information transmission the most important factor in the war? Or, more generally, for you, is the military-industrial complex still the motor of history?

Paul Virilio: I believe that the military-industrial complex is more important than ever. This is because the war in Kosovo gave fresh impetus not to the military-industrial complex but to the military-*scientific* complex. You can see this in China. You can also see it in Russia with its development of stealth planes and other very sophisticated military machines. I am of course thinking here about new planes such as the *Sukhois*. There is very little discussion about such developments but, for me, I am constantly astonished by the current developments within the Russian airforce. And, despite the economic disaster that is Russia, there are still air shows taking place in the country. For these reasons, then, I believe that the politics of intervention and the Kosovo war prompted a fresh resumption of the arms race worldwide. However, this situation has arisen because the sovereignty of the state is no longer accepted. This is also why we are witnessing states rushing forward in order to safeguard themselves against an intervention similar to the one that took place in Kosovo. This is one of the most disturbing, if indirect, aspects of the war in Kosovo and one that I discuss at length in my new book. Of course, one of the most disturbing features is the fact that while we have had roughly a ten year pause in the arms race where a lot of good work was done, this has now come to an end. For what we are seeing at the present time are new developments in anti-missile weaponry, drones, and so on. Thus, some of the most dramatic consequences of the Kosovo war are linked to the resumption of the arms race and the suicidal political and economic policies of countries like India and Pakistan where tons of money are currently being spent on atomic weaponry. This is abhorrent!

John Armitage: Before we turn to consider the aesthetic aspects of the 'disappearance' of military space and the organisation of territory in Kosovo, I would like to ask why it was that in the late 1970s and early 1980s you first began to consider the technological aspects of these phenomena? What was it that prompted you to focus on the technological aspects at that time?

Paul Virilio: Because it was from that time onwards that *real time superseded real space!* Today, almost all-current technologies put the speed of light to work. And, as you know, here we are not only talking about information at a distance but also operation at a distance, or, the possibility to act instantaneously, from afar. For example, the RMA *begins* with the application of the speed of light. This means that history is now rushing headlong into the wall of time. As I have said many times before, *the speed of light does not merely transform the world. It becomes the world. Globalisation is the speed of light. And it is nothing else!* Globalisation cannot take shape without the speed of light. In this way, history now inscribes itself in real time, in the 'live', in the realm of interactivity. Consequently, history no longer resides in the extension of territory. Look at the US, look at Russia. Both of these countries are immense geographical territories. But, nowadays, immense territories amount to nothing! Today, everything is about speed and real time. We are no longer concerned with real space. Hence not only the crisis of geopolitics and geostrategy but also the shift towards the emergence and dominance of *chronostrategy*. As I have been arguing for a long time now, there is a real need not simply for a political economy of wealth but also for a political economy of speed.

John Armitage: But what about the cultural dimensions of chronostrategy? For instance, although modernist artists such as Marinetti suggested to us that 'war is the highest form of modern art', Walter Benjamin warned us against the 'aestheticization' of war in his famous essay in *Illuminations* (1968) on 'The Work of Art in the Age of Mechanical Reproduction'. Additionally, in your *The Aesthetics of Disappearance* (1991 [1980]), you make several references to the relationship between war and aesthetics. To what extent do you think that the Kosovo War can or should be perceived in cultural or aesthetic terms?

Paul Virilio: First of all, if I have spoken of a link between war and aesthetics, it is because there is something I am very interested in and that is what Sun Tzu in his ancient Chinese text calls *The Art of War*. This is because, for me, war consists of the organisation of *the field of perception*. But war is also, as the Japanese call it, 'the art of embellishing death'. And, in this sense, the relationship between war and aesthetics is a matter of very serious concern. Conversely, one could say that religion in the broadest sense of the word is 'the art of embellishing life'. Thus, anything that strives to aestheticise death is profoundly tragic. But, nowadays, *the tragedy of war is mediated through technology*. It is no longer mediated through a human being with moral responsibilities. It is mediated through the destructive power of the atomic bomb, as in Stanley Kubrick's film, *Dr Strangelove*.

Now, if we turn to the war in Kosovo, what do we find? We find the manipulation of the audience's emotions by the mass media. Today, the media handle information as if it was a religious artefact. In this way, the media is more concerned with what we feel

about the refugees and so on rather than what we think about them. Indeed, the truth, the reality of the Kosovo War, was actually hidden behind all the 'humanitarian' faces. This is a very different situation from the one faced by General Patton and the American army when they first encountered the concentration camps at the end of the Second World War. Then, it was a total and absolute surprise to find out that what was inside the concentration camps was a sea of skeletons. What is clear to me, therefore, is that while the tragedy of war grinds on, the contemporary aesthetics of the tragedy seem not only confused but, in some way, suspicious.

John Armitage: Almost inevitably, reviewers will compare *Strategie de la deception* with your earlier works and, in particular, *War and Cinema: The Logistics of Perception* (1989 [1984]). Indeed, the very first chapter of the latter book is called 'Military Force is based upon Deception'. Could you summarise the most important developments that, for you, have taken place in the relationship between war, cinema, and deception since you wrote *War and Cinema*?

Paul Virilio: For me, Sun Tzu's statement that military force is based upon deception is an extraordinary statement. But let us start with the title of *War and Cinema*. The important part of the title is not *War and Cinema*. It is the subtitle, *The Logistics of Perception*. As I said back in 1984, the idea of logistics is not only about oil, about ammunitions and supplies but also about images. Troops must be fed with ammunition and so on but also with information, with images, with visual intelligence. Without these elements troops cannot perform their duties properly. This is what is meant by the logistics of perception.

Now, if we consider my latest book, *Strategie de la deception*, what we need to focus on are the other aspects of the same phenomenon. For the strategies of deception are concerned with deceiving an opponent through the logistics of perception. But these strategies are not merely aimed at the Serbs or the Iraqis but also at all those who might support Milosevic or Saddam Hussein. Moreover, such strategies are also aimed at deceiving the general public through radio, television and so on.

In this way, it seems to me that, since 1984, my book on the logistics of perception has been proved totally correct. For instance, almost every conflict since then has involved the logistics of perception, including the war in Lebanon, where Israel made use of cheap drones in order to track Yasser Arafat with the aim of killing him. If we look at the Gulf War, the same is also true. Indeed, my work on the logistics of perception and the Gulf War was so accurate that I was even asked to discuss it with high-ranking French military officers. They asked me: 'how is it that you wrote that book in 1984 and now it's happening for real?' My answer was: 'the problem is not mine but yours: you have not been doing your job properly!'

But let us link all this to something that is not discussed very often. I am referring here to the impact of the launch of the television news service CNN in 1984 or thereabouts. However, what I want to draw your attention to is CNN's so-called 'Newshounds'. Newshounds are people with mini-video cameras, people who are continually taking pictures in the street and sending the tapes in to CNN. These Newshounds are a sort of pack of wolves, continually looking for quarry, but quarry in the form of images. For example, it was this pack of wolves that sparked off the Rodney King affair a few years ago in Los Angeles. Let us consider the situation: a person videos Rodney King being beaten up by the cops. That person then sends in the footage to the TV station. Within hours riots flare up in the city! There is, then, a link between the logistics of perception, the wars in Lebanon and the Gulf as well as with CNN and the Pentagon. But what interests me here is that what starts out as a story of a black man being beaten up in the street, a story that, unfortunately, happens all the time, everywhere, escalates into something that is little short of a war in Los Angeles!

John Armitage: In *The Vision Machine* (1994 [1988]) you were concerned with highlighting the role of the military in the 'contemporary crisis in perceptive faith' and the 'automation of perception' more broadly. Has the Kosovo War led you to modify your claims about the role of the military in the contemporary production and destruction of automated perception via Cruise missiles, so-called 'smart bombs' and so on?

Paul Virilio: On the contrary. The development and deployment of drones and Cruise missiles involves the continuing development of the vision machine. Research on Cruise missiles is intrinsically linked to the development of vision machines. The aim, of course, is not only to give vision to a machine but, as in the case of the Cruise missiles that were aimed at Leningrad and Moscow, also to enable a machine to deploy radar readings and pre-programmed maps as it follows its course towards its target. Cruise missiles necessarily fly low, in order to check on the details of the terrain they are flying over. They are equipped with a memory that gives them bearings on the terrain. However, when the missiles arrive at their destination, they need more subtle vision, in order to choose right or left. This, then, is the reason why vision was given to Cruise missiles. But in one sense, such missiles are really only flying cameras, whose results are interpreted by a computer. This, therefore, is what I call 'sightless vision', vision without looking. The research on vision machines was mainly conducted at the Stanford Research Institute in the US. So, we can say that the events that took place in the Kosovo War were a total confirmation of the thesis of *The Vision Machine*.

John Armitage: Let us turn to vision machines of a different variety. To what extent do you think that watching the Kosovo War on TV reduced us all to a state of *Polar*

Inertia (1999 [1990]), to the status of Howard Hughes, the imprisoned and impotent state of what you call 'technological monks'?

Paul Virilio: There can be no doubt about this. It even held true for the soldiers involved in the Kosovo War. For the soldiers stayed mostly in their barracks! In this way, polar inertia has truly become a *mass phenomenon*. And not only for the TV audiences watching the war at home but also for the army that watches the battle from the barracks. Today, *the army only occupies the territory once the war is over*. Clearly, there is a kind of inertia here. Moreover, I would like to say that the sort of polar inertia we witnessed in the Kosovo War, the polar inertia involving 'automated war' and 'war-at-a-distance' is also terribly weak in the face of terrorism. For instance, in such situations, any individual who decides to place or throw a bomb can simply walk away. He or she *has the freedom to move*. This also applies to militant political groups and their actions. Look at the *Intifadah* in Jerusalem. One cannot understand that phenomenon, a phenomenon where people, often very young boys, are successfully harassing one of the best armies in the world, without appreciating their freedom to move!

John Armitage: Jean Baudrillard famously argued that *The Gulf War Did Not Take Place* (1995 [1991]). Could it be argued that the Kosovo War did not take place?

Paul Virilio: Although Jean Baudrillard is a friend of mine, I do not agree with him on that one! For me, the significance of the war in Kosovo was that it was a war that moved into space. For instance, the Persian Gulf War was a miniature world war. It took place in a small geographical area. In this sense it was a local war. But it was one that made use of all the power normally reserved for global war. However, the Kosovo War took place in orbital space. In other words, war now takes place in 'aero-electro-magnetic space'. It is equivalent to the birth of a new type of flotilla, a home fleet, of a new type of naval power, but in orbital space!

John Armitage: How do these developments relate to Global Positioning Systems (GPS)? For example, in *The Art of the Motor* (1995 [1993]), you were very interested in the relationship between globalisation, physical space, and the phenomenon of virtual spaces, positioning, or, 'delocalization'. In what ways, if any, do you think that militarized GPS played a 'delocalizing' role in the war in Kosovo?

Paul Virilio: GPS not only played a large and delocalizing role in the war in Kosovo but is increasingly playing a role in social life. For instance, it was the GPS that directed the planes, the missiles and the bombs to localised targets in Kosovo. But may I remind you that the bombs that were dropped by the B-2 plane on the Chinese embassy or at least that is what we were told were GPS bombs. And the B-2 flew in from the US. However, GPS are everywhere. They are in cars. They were even in

the half-tracks that, initially at least, were going to make the ground invasion in Kosovo possible. Yet, for all the sophistication of GPS, there still remain numerous problems with their use. The most obvious problem in this context is the problem of landmines. For example, when the French troops went into Kosovo they were told that they were going to enter in half-tracks, over the open fields. But their leaders had forgotten about the landmines. And this was a major problem because, these days, landmines are no longer localised. They are launched via tubes and distributed haphazardly over the territory. As a result, one cannot remove them after the war because one cannot find them! And yet the ability to detect such landmines, especially in a global war of movement, is absolutely crucial. Thus, for the US, GPS are a form of sovereignty! It is hardly surprising, then, that the EU has proposed its own GPS in order to be able to localise and to compete with the American GPS. As I have said before, sovereignty no longer resides in the territory itself, but in the control of the territory. And localisation is an inherent part of that territorial control. As I pointed out in *The Art of the Motor* and elsewhere, from now on we need two watches: a wristwatch to tell us what time it is and a GPS watch to tell us what space it is!

John Armitage: Lastly, given your analyses of technology and the general accident in recent works such as *Open Sky* (1997 [1995]), *Politics of the Very Worst* (1999 [1996]) and *The Information Bomb* (2000 [1998]), what, for you, is the likely prospective critical impact of counter measures to such developments? Are there any obvious strategies of resistance that can be deployed against the relentless advance of the technological strategies of deception?

Paul Virilio: Resistance is *always* possible! But we must engage in resistance first of all by developing the idea of a *technological culture*. However, at the present time, this idea is grossly underdeveloped. For example, we have developed an artistic and a literary culture. Nevertheless, the ideals of technological culture remain underdeveloped and therefore outside of popular culture and the practical ideals of democracy. This is also why society as a whole has no control over technological developments. And this is one of the gravest threats to democracy in the near future. It is, then, imperative to develop a democratic technological culture. Even among the elite, in government circles, technological culture is somewhat deficient. I could give examples of cabinet ministers, including defence ministers, who have no technological culture at all. In other words, what I am suggesting is that the hype generated by the publicity around the Internet and so on is not counter balanced by a political intelligence that is based on a technological culture. For instance, in 1999, Bill Gates not only published a new book on work at the speed of thought but also detailed how Microsoft's 'Falconview' software would enable the destruction of bridges in Kosovo. Thus it is no longer a Caesar or a Napoleon who decides on the fate of any particular war but a piece of software! In short, the political intelligence of

war and the political intelligence of society no longer penetrate the technoscientific world. Or, let us put it this way, technoscientific intelligence is presently insufficiently spread among society at large to enable us to *interpret* the sorts of technoscientific advances that are taking shape today.

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CTHEORY editors would like to thank Paul Virilio for participating in this CTHEORY interview, John Armitage for conducting and editing the conversation, and Patrice Riemens for translating the interview.

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