From Modernism to Hypermodernism and Beyond

An Interview with Paul Virilio

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Postmodernism and Hypermodernism

JA: Professor Virilio, I would like to begin by charting your place within the contemporary intellectual landscape.[1] For instance, your work is closely associated with the cultural movement known as postmodernism. Certainly, your most recently translated study *Open Sky* (1997 [1995]) is being received as such in the English-speaking world.[2] However, you have always been sceptical of the idea of postmodernism. Could you explain the basis of your critique of this concept?

PV: Postmodernism is a notion that makes sense in architecture, through the work of [Robert] Venturi (Venturi et al., 1977) and so on. Since I am teaching architecture, to me, postmodernism is a 'suitcase' word, a syncretism. In architecture it is a clear-cut phenomenon: styles are mixed up, history is ignored, one goes for a 'melting pot' of approaches. But as far as thought is concerned, thought as developed in the years 1970–80, I simply cannot understand why people are talking about postmodernism. Poststructuralism? Yes, OK. Postmodernism? It doesn't make any sense to me. Hence, I do not feel linked at all with postmodernity. Moreover, as a teacher in a college of architecture, I believe postmodernism was a catastrophe in the history of modern architecture. Therefore there is no linkage between me and postmodernism. I know that many people tend to associate postmodernism with relativism, especially with cognitive relativism. Well, this is a new polemic that is cropping up, especially here in France, and which does not concern, let alone interest me in the slightest measure. Another

thing is that I am a very marginal thinker, I do not relate to any established school of thought. Of course, I am a phenomenologist. When young, I was a pupil of [Maurice] Merleau-Ponty, I loved [Edmund] Husserl. You could call me a 'Gestaltist', I was enthusiastic about the psychology of form, Paul Guillaume, and the Berlin school: these are my intellectual origins.[3] I have been associated with the end phase of structuralism, with [Michel] Foucault, of course, and [Gilles] Deleuze. But I am essentially a marginal figure. The main influence in my work has been the Second World War, that is, strategy, spatial planning, and this body of thinking about total war of which I was victim in my youth.

JA: It seems to me that your work, which is primarily concerned with technological, urban and socio-cultural change, is the work of someone whose thinking addresses the problem of what might be called 'super' or 'hypermodernism'?[4] I say this because your theoretical interventions appear to be aimed not only at intensifying but also at displacing traditional forms of thought about the modern world and the way it is represented. How do you respond to this interpretation?

PV: I totally agree. As a so-called 'war baby', I have been deeply marked by the accident, the catastrophe, and thus by sudden changes, and upheavals. I am a child of the *Blitzkrieg*, the 'lightning war', I am a child of history's acceleration, as Daniel Halévy put it in 1947.[5] Hence, it is clear that my work is a critical analysis of modernity, but through a perception of technology which is largely, I might say, catastrophic. I say catastro*phic*, not catastro*phist*. This is because I have witnessed the drama of total war myself, I have lived through it, the millions of deaths, the cities razed to the ground, all that. As far as 'hyper' or 'super' modernism is concerned, I think we are not out of modernity yet, by far. I think that modernity will only come to a halt within the ambit of what I call the 'integral accident' (Virilio, 1989b [1986], 1997). I believe that technical modernity, modernity taken as the outcome of technical inventions over the past two centuries, can only be stopped by an integral ecological accident, which, in a certain way, I am forecasting. Each and every invention of a technical object has also been the innovation of a particular accident. From the sum total of the technosciences does arise, and will arise a 'generalized accident' (1997). And this will be modernism's end.

JA: Do you consider yourself a modernist author? Your writing style, for example, seems to many people to replace traditional narrative and structure with the 'stream of consciousness' technique . . .

PV: Yes, I do. Well, let me put it this way: to be concerned with speed, like I am, means to be involved in music. For 20 years now I have been working on 'dromology', that is, on the importance of speed in history, and thus of acceleration (Virilio, 1986 [1977]). Now, if there is a realm where speed is

really an important element, it is music, rhythm, tempo. And thus my writing is a dynamic, cinematic process. Moreover, and I state this as modestly as possible, it is my belief that philosophy is a mere subdivision of literature. To me, Shakespeare is really a great philosopher, perhaps above Kant and a few others.

Relativity

JA: *Open Sky* (1997 [1995]) brings to the fore one of the most under-appreciated themes of your writings, namely, your interest in Albert Einstein's theory of relativity. This scientific concept is also occasionally viewed as a facet of modernism. How does the theory of relativity relate to your current projects?

PV: Well, frankly, this is quite simple. There is no way one could study the phenomenon of acceleration in all these domains, whether that is in the realm of transportation, or in the realm of information, that is, in the transfer of information, without stepping full scale into the issue of relativity. It is unavoidable. Ours are cinematic societies. They are not only societies of movement, but of the acceleration of that very movement. And hence, of the shortening of distances in terms of time, but, I would also add, of the relation to reality. It is thus simply impossible to ignore the theory of relativity. We're all going through the gates of relativity. It is well known that the theory of relativity is very poorly popularized, it is not at all well-understood by the general public. One cannot skip the theory of relativity for the mere reason that it is difficult to understand. Why so? Because we live it. We live it through mobile phones, through 'live' programmes on TV, through the telecommunications media, through Virtual Reality (VR), through cyber-space, through video-conferencing, through supersonic air travel and so on. Thus, as we live it, we interpret it, in the musical sense of the word. Like one says, 'to interpret a musical score', we, all of us, interpret the theory of relativity through our own lived lives. We do that through our calendar, through our time planning, our relationships, our involvement in love affairs even. We do that through the telephone, for instance, we do that through education, and through 'tele-learning'. We have become deterritorialized. Our embedding in our native soil, that element of *hic et nunc* (here and now), 'in situ', that embedding belongs, now, in a certain way, to the past. It has been overtaken by the acceleration of history, – by the acceleration of reality itself – by 'real time', and by the 'live', all of which are in a stage beyond the *hic et nunc*, 'in situ' condition. Caught as we are between this territory-based embedding, which is of a geographic, geophysical nature, or even of a geostrategic nature in the case of the military, and total deterritor-ialization, what remains in order to interpret our world? Nothing but relativity! Not the physicists' relativity, but our relativity, the relativity of our own lived lives, for which we are responsible, and of which we are the victims, at the same time. Relativity is no longer the exclusive domain of

(natural) scientists, it has become the property of all those who live in the modern world.

Phenomenology and Marxism

JA: Before we move on to discuss your relationship to deconstruction (Derrida, 1973 [1967], 1976 [1967]) and post-structuralism, I would like to ask one or two questions about your own intellectual formation. For example, one of the leading philosophies in France and elsewhere in the immediate aftermath of the Second World War was structuralism...

PV: Yes, indeed, absolutely so. And certainly not existentialism...

JA: Even so, your own philosophical background developed through an engagement with Merleau-Ponty's *Phenomenology of Perception* (1962 [1945]). What would you say you learnt most from Merleau-Ponty's work and how has it influenced your own?

PV: First of all, I was a pupil of Merleau-Ponty, of Jean Wahl and of Vladimir Jankelevitch, to name three French philosophers who were teaching at the Sorbonne at that time. The one to which I felt most attracted was quite naturally Maurice Merleau-Ponty, and his *Phenomenology of Perception*. Why? Because I am so totally involved with perception myself, through my childhood, through painting. Yes, I painted, I even worked with famous painters such as [Henri] Matisse and [Georges] Braque when I was young. I am a man of perception, a man of the gaze, I am a man of the visual school of thought. Therefore, Merleau-Ponty's *Phenomenology of Perception* appeared to me to form a crossroads with the psychology of form, with Gestalt and the whole Berlin School. And thus it is at this crossroads of the psychology of form, Gestalt theory and the *Phenomenology of Perception* that I position myself. And to that one of course has to add the reading of Einstein, of the big scientific names of the time, [Paul] Dirac, [Werner] Heisenberg and yes, of course, [Henri] Bergson.[6] So you have a crossroads there, and it's where I stand, at the intersection.

JA: Merleau-Ponty was, for a large part of his life, associated with the philosophy of humanist Marxism. One thing that has always surprised me about your writings, particularly within the intellectual context of postwar France, is the absence of any reference to Marx. What is your relationship, if any, to Marxism?

PV: I am no Marxist, nor have I ever been one. But my father was a communist. We'll come back to that later. You see, my mother was a Breton, and my father Italian. Like every young boy (laughs) I had to choose between my mother and my father. So, although I have a lot of respect for my father, I totally reject his political views. I absolutely cannot be a communist. I might well feel at home as a 'communard', as in the Paris

Commune, or as an anarcho-syndicalist, these would suit me. But Marxism, no! Take it as a reaction against my father.

JA: Are you saying that your reasons for rejecting the Marxism of your intellectual contemporaries like Merleau-Ponty were autobiographical rather than theoretical?

PV: Yes, you're right, my intellectual contemporaries were communist to a man. I was not. But my reasons were theoretical also. This is because, when I was young, I converted to Christianity. I converted when I was 18, as an adult. The war had just ended then, and I had seen terrible things, and that was also one of the reasons for my conversion to Christianity. But then, you must know that I converted in the company of 'worker-priests'. Worker-priests are, in France, those priests who take an industrial job and go to live with the factory workers. They do not display their pastoral cross. I chose to convert with a worker-priest because I wanted something real, not some religious show with a guy in a costume. It is since that time that I have worked with Abbé Pierre.[7]

JA: Would it be correct, then, to suggest that you have no *theoretical* objections against socialism, against the left as a body of thought?

PV: No, of course not, I have nothing against socialism. I belong to the left, that is quite clear . . .

JA: Nevertheless, in the immediate aftermath of the Second World War, many of your friends were not merely on the left but also committed Marxists . . .

PV: True . . .

JA: Can you recall why you felt it necessary to develop your own political perspective at that time? . . .

PV: I feel that many of my contemporaries have totally blacked out the war from their minds. Many of them never experienced totalitarianism. I lived through that experience. With a communist father, who was Italian to boot, we had to make our escape from totalitarianism, from Nazism and so on. It was no joke to be both communist and Italian during the Second World War (in occupied France). This meant that I never could get involved in something that appeared to me, right from the beginning, to be a totalitarian phenomenon. Yet I have always remained interested in the leftist dimension within Marxism.

'Anarcho-Christianity'

JA: You spoke earlier of your conversion to Christianity. What role does it play in your work? Do you see yourself, for example, as part of a French Catholic moral tradition that might include other Christian and existential-ist critics of technology like Gabriel Marcel or Jacques Ellul?[8]

PV: Yes, I do see linkages, especially with Jacques Ellul, rather than with Gabriel Marcel, who is from an earlier generation. But I cannot really place myself within what you call a Catholic tradition. The reason is that I have always been utterly unable to write about my faith. I do not have the gift for that. I have always considered that my life as a follower of Christ was something happening through my everyday life, not through my theoretical writings. It is not that I refuse to do it, I would gladly write a book about it, but I simply do not have the gift for it. You see, I do not have much of a theological culture. My conversion was an affair of the heart, a love affair you may say, more than an intellectual one. Speaking of religion, I feel much more at ease with an ordinary, poor person. When I am writing, I am somewhere else.

JA: In the late 1950s and throughout most of the 1960s the philosophy of structuralism began to challenge Christian existentialism, phenomenology and humanist Marxism. Structuralism was, of course, profoundly *anti*-humanist. Could your own theoretical approach be described as anti-humanist?

PV: Oh, not at all. I am an anarcho-Christian. It sounds quite paradoxical, but to me the definition of man is subsumed, and I quote it often, in a saying by someone I have come to like very much, Hildegarde of Bingen. St Hildegarde wrote, composed music, played harp, and was many other things at once. The saying is: '*Homo Est Clausura Mirabilium Dei*': 'Man is the closing point of the marvels of the universe' (i.e. God). Thus, for me, Man is not the centre of the universe, he is the end of the universe, the end of the world. This has nothing to do with ideas like 'transcendental ego' or 'egocentrism'. For me, there is nothing beyond man. Forget about tech-nology, eugenism, robotics, prostheses. Forget also about [Friedrich Nietzsche's] '*Uebermensch*' [Overman]. I do not believe these ideas are at all humanist. I think they're far worse. This is a very important point for me, because I am absolutely against this newfangled form of totalitarianism which I call technoscience and its cult. I see there a yet unheard-of eugenics programme, eugenics written very large, far beyond [Sir Francis] Galton's.[9] The idea behind this new brand of eugenicism being to perfect man, to make a better man. Well, there is no such thing as the possibility of 'improving' man, of tinkering man into something better. No way. Never.

JA: You would say that such a programme would not be a desirable aim?

PV: No indeed, I believe it is not. Yet it is exactly the programme of technoscience. Take, for instance, 'Dolly' [the recently cloned sheep], take neo-eugenicism, clones, take all new technologies. We see now a eugenic desire running amok.

From Military Space to Cyberspace

JA: The initial significance of your theoretical work flows from your architectural and photographic enquiries, documented in *Bunker Archeology* [sic] (1994a [1975]), into the 'Atlantic Wall' – those 1500 German bunkers constructed during the Second World War along the French coastline to prevent an Allied invasion . . .

PV: There were in fact 15,000 of them, one zero more! And they stretched along the West European coast all the way up to Denmark. But about me: I spent my youth in the town of Nantes. Nantes lies at the mouth of the Loire, just before the Atlantic Ocean. Its true oceanic harbour is St Nazaire, where there was a German submarine base, and in fact an Allied landing took place there at some stage. Thus I spent the war time as a boy, with the sea just one hour away, yet without ever being able to go and see it: the seashore was a forbidden zone. So when liberation finally came, I rushed to the sea, to the beaches, like everybody else did. And there I encountered structures which were littering the beaches: the bunkers of the Atlantic Wall. And thus at the same time as I saw the sea for the first time, I also discovered these mysterious, enigmatic architectural structures. To me, they were like the statues on Easter Island. And so, for ten years, I went on a quest after these structures. I sketched and photographed these bunkers in order to come to grips with the totalitarian dimension of the war. My first snapshots were taken in 1957, the last ones in 1965.

JA: What was the connection between this discovery and your thinking on military space?

PV: First, it was an emotional discovery, which you might compare with Victor Segalen's first encounter with Chinese sculpture. You can also call it an archaeological experience, and a shocking one. Another element, aside from this encounter with military space, and which led me to write *Bunker Archeology*, was that I wanted to get involved in the study of urban phenomena, in the city and its technique. I switched over to urbanism, to architecture and thus to the study of the technique's impact on the space of the city, and the way it alters the urban landscape. And at this point, you of course meet Gestalt theory, the psychology of forms. Military space is an organized form of perception. When I was a conscript – I served in the artillery – I was a gunner. Part of my military service was in Germany, in the French occupation zone. I was stationed in Freiburg, at the HQ of the First French Army. I ended up as a cartographic officer in the staff of Field Marshall Juin. In this function I made a good number of military surveys in

the Black Forest region, to be used in manoeuvres taking place in the occupied zone. So everything is linked up. There is an aesthetic kind of involvement with bunkers, and an urbanistic one in the field of regional planning. Over thousands of kilometres, the coast was organized in such a way as to be controlled by sight. It is that logic that made me understand to what extent the war had been a total one. War had not only conditioned the people through manslaughter, Auschwitz and wholesale executions, it had also reorganized the territory, just like the Great Chinese Wall had done. One could say that military architecture was the first incarnation of Land Art. In fact, minimalist and Land artists like Robert Morris came to me later to reflect on my book, and said they had found it most interesting.[10]

JA: In *The Function of the Oblique* (Johnston, 1996) you, along with the architect Claude Parent, outline your efforts in the 'Architecture Principe' group of the early 1960s to initiate an urban regime based on the theory of the 'oblique function', which, while founded on uneven planes and bodily disorientation, nevertheless resulted in the construction of several major works. Looking back, what do you think were the major achievements and disappointments of Architecture Principe and the theory of the oblique function?

PV: Architecture Principe was the name of a group. That period lasted five years in all (1963–8). You must know that this was at a time when many artists, philosophers and the like would come together to do things. For instance, we did quite a few things together with 'Archigram'. You also had Paulo Soleri in the United States, and there was also the 'Metabolic' group in Japan.[11] And so, Claude Parent and myself decided to start a research group together, and the main thing I contributed to was a church. That was the St Bernadette church in Nevers, and that church is a so-called 'Bunker church'. Why? Because I wanted to 'Christianize' the bunker. Of course, at the time, the prevailing myth was that of the crypt – the atomic shelter. One was then living under the permanent threat of the atomic bomb, and hence the atomic shelter. And so, you get a cross-point between the theme of St Bernadette of Lourdes, and that of the bunker. In Lourdes, the Virgin Mary appeared to St Bernadette in a grotto. Now, both the grotto and the bunker are crypts, hidden places, as in the English word, cryptic. And thus there was an opportunity to make a cross-over happen between that monolithic branch of architecture and a religious building. There is another reason: I had frequently been to Germany, to look at bunkers, and there I had seen a lot of so-called '*Luftschutzraum*', air-shelters and, in Dusseldorf, I suddenly saw *Luftschutzraums* which had been converted into Protestant or Catholic churches. And a correspondence dawned on me as between these places of shelter from danger, and places of worship, which are also places of salvation. We had another big project, a factory, and we also designed a number of private homes with inclined planes. Now if you want me to explain the concept of the oblique function as succinctly as possible it is

this: simply to have people inhabit places with inclined, not horizontal, planes . . .

JA: And the disappointments?

PV: We published things. But, basically, this was a typical 'youth group'. And it broke up with the 'events' of May 1968. I was myself very much involved in those events, whereas Claude Parent was against the whole thing. So our ways parted, I went to the left, and he went to the right.[12]

JA: Much of your work in the late 1960s and early 1970s is overtly concerned with the idea of 'critical space'. Could you elaborate on this concept?

PV: Critical space is indeed a very important concept. You must see it as the direct outcome of me joining the École Spéciale d'Architecture, in 1968, at the formal request of the students there. And then, I immediately realized that the *prima materia* of the architect is not matter, bricks, stones and concrete, but space. And that it is necessary to construct space first before you can build up matter, with materials. Now, about the *critical* aspect of space: this means that space finds itself in a critical situation, just like one would speak of critical times, or of a critical situation. Space is under threat. Not only matter is threatened, space too is being destroyed. But it is being rebuilt at the same time. This is what I started to feel in the 1960s, and it was by then that I got the foreboding of cyberspace! I got the foreboding of virtual space, through Benoit Mandelbrot and the new geometry of fractals.[13] I came to see that the unity of space, which served as a basis for Le Corbusier, for the Archigram group, for all of us in sense, is in the process of being broken up. And the curious thing is that I published *The Lost Dimension* (1991b [1984]) in the same year as William Gibson published *Neuromancer* (1984). So here you have someone who writes on virtual space, on cyberspace, and someone who works on critical space. And both approaches will come to mesh into each other. To me, the reason why space is critical is because it is on the verge of becoming virtual space. Let me give you another example: whole dimensions no longer exist. For the modern architect, there exist the three dimensions, and time on top of them. This is what you might call 'ancient space'. It's modern space too, but it is conventional. From Mandelbrot onwards, dimensions are no longer whole, they are broken up. Space is fractured too. Nothing remains whole, as space, from approximately the 1970s onwards. And, to me, this is a great joy, since I am an anti-totalitarian. Newtonian absolute space disappears with the break up brought about by fractals, and by Einsteinian relativity in the first place, of course. The entire unity of space, which was the basis of architecture, modern architecture included, is deconstructed, fractionalized. This is what I call an 'accident'. It is a far better situation than that of totalitarian space. Geometry has now encountered its accident in fractalization.

JA: In *The Lost Dimension* and elsewhere, you present critical analyses of
the nature of electronic space and the spread of new information and
communications technologies. Why is it necessary to criticize, say, the
Internet and cyberspace?

PV: I do not criticize the Internet and cyberspace as such. What I criticize
is the propaganda unleashed by Bill Gates and everything that goes with it.
What I loathe are the monopolies of Microsoft, of Time Warner, etc. I cannot
stand those! I am an Apple fan, I am for Apple's convivial approach. I am
not fretting against technology per se, but against the logic behind it. But
first and foremost I'd like to position myself as an art critic of technology.
Everybody is familiar with the conventional art critic, the musicologist. But
art criticism of technology is a taboo. 'Yes and Amen' is the only allowed
position. Well, not for me, thanks!

Nietzsche, Derrida, Power

JA: Although you were working on critical space in the late 1960s and early
1970s, it was also in that period when both structuralism and Marxism came
under attack. Deconstructionists and post-structuralist philosophers like
Jacques Derrida, for example, looked to Nietzsche rather than Marx for
inspiration. Would it be correct to say that Nietzsche's philosophy is close to
your own?

PV: It is true that I always have felt close to Deleuze and Derrida, who were
very intimate friends, and Derrida still is, but I must confess that I have
never been convinced by their 'Nietzscheanism'. I love 'Nietzschean music'.
But, to me, Nietzsche is a man of the grand opera! His linkage with Wagner
is not at all fortuitous. And I really admire the operatic part of Nietzsche.
But his underlying philosophy? I'm sorry, I cannot stand it! It's physically
repulsive! All that crap about the *'Uebermensch'*, and 'the Will to Power'! I
do, though, profoundly admire the dramatic, the literary dimension, in
Nietzsche. But I cannot assign any philosophical value to that brand of
thinking. Here we encounter Shakespeare again. It is clear that I prefer
Shakespeare to Nietzsche, by far. When I link Nietzsche's writings to the
opera, it is because, to me, philosophy is spread out over the arts. Take
Marcel Duchamp: for me, he is a philosopher who happens to paint. Shake-
speare is a philosopher who writes plays. Kant is a philosopher who writes
philosophical treatises. But philosophy transcends all this. When reading
Nietzsche, I admire the literary music, the 'heroization' of concepts. As half
Italian, I admire! I clap my hands! I love theatre! To me, Nietzsche is like
Verdi. I applaud. But at the same time, I cannot, simply cannot, accept his
philosophy. You see, I remain an art critic.

JA: Do you see any points of contact between your work and that of
Derrida? Derrida (1984, 1996 [1995]) has, for instance, not only written on
Nietzsche but also on speed and technoscience . . .

PV: No. The fact is that I do appreciate Derrida very much, but I do not encounter him. There are parallels in our work, but we do not share common ground. I cannot formulate it better. We are friends, but there are no points of contact in our writings.

JA: Earlier, you rejected the Nietzschean conception of power. How would you define power?

PV: This is a rather difficult type of question to respond to. The question of power is a long and vexed one. The ancient Chinese had an extraordinary phrase for it. When a representative of the Emperor would meet some local or regional power holder, his first words would be: 'Tremble and Obey!' To me, this is the best definition of power. Fear! That is, to instil fear, to frighten. The first thing power is about is fear, and from that compliance follows. Fear is of course also about emotions, about astonishment. And speed frightens. There is an awful lot more to say, naturally.

The Political Economy of Speed

JA: Power and speed are central to perhaps what is your best known book, *Speed & Politics: An Essay on Dromology* (1986 [1977]). Could you explain the nature and significance of dromology?

PV: Dromology originates from the Greek word, *dromos*. Hence, dromology is the science of the ride, the journey, the drive, the way. To me, 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 the political economy of speed. If time is money, as they say, then speed is power. You see it with the velocity of the predators, of the cavalry, of railways, of ships and maritime power. But it is also possible to see it with the velocity of dispatching information. So all my work has been about attempting to trace the dromocratic dimension of societies from ancient Greek society right up to our present-day societies. This work is of course about unrelenting acceleration, but it is mostly about the fact that all societies are pyramidal in nature: the higher speeds belong to the upper reaches of society, the slower to the bottom. The wealth pyramid is the replica of the velocity pyramid. Examples are easy to find: it was true in ancient societies, through maritime power and cavalry, and through their ways of dispatching messages, and it holds true in our modern societies, through the transport revolution, and through the current revolution in data transport and information processing. Thus my work is all about stating that it is of paramount importance to analyse acceleration as a major political phenomenon, a phenomenon without which no understanding of history, and especially history-that-is-in-the-making since the 18th century is possible.

JA: In *Speed & Politics* you also suggest that successive waves of accelera-
tion imply both the 'disappearance' of physical geographical space and a
new politics of real time. What, for you, is the most important aspect of the
relationship between the physical dimension and the political space of real
time?

PV: Well, the old politics of acceleration were mainly about transport. That
is, the possibilities inherent in moving goods from one place to another, or,
perhaps equally importantly, moving *troops* from one point to another. This
means that acceleration bore next to no relationship to information. You had
pigeons, and other methods of despatching, but through the ages there was
hardly any acceleration of information transmission. But today, that is, since
the beginning of the 20th century, acceleration is mainly about the increas-
ing speed of information transmission. Sure, transportation has been con-
stantly speeded up too, but, today, the major development is the increasing
speed of information transmission, and the quest for the attainment of real
time. Information transmission is thus no longer concerned with the bring-
ing about of a relative gain in velocity, as was the case with railway transport
compared to horse power, or jet aircraft compared to trains, but about the
absolute velocity of electromagnetic waves.

Pure War and the Politics of Everyday Life

JA: Your concerns about what might be called 'the dromocratic condition'
led, in the late 1970s, to the publication of your *Popular Defense &
Ecological Struggles* (1990 [1978]). This seems to me to be one of the few
books of yours which, while discussing the theoretical concept of 'Pure
War', also makes a *practical* political case for 'Revolutionary Resistance'
against the tyranny of speed politics and, in particular, the military-
industrial complex. Could you elaborate upon these concepts? Are they
still relevant today?

PV: Here, one must state that the book might also have been titled *Pure
War* (Virilio and Lotringer, 1997 [1983]) since that is the heading of the
Introduction.[14] That was the time when we were living with the unadulter-
ated balance of terror. What I mean is that one cannot understand the
concept of pure war outside of the atomic bomb, the weapon of the
apocalypse. At that time, and this has been somewhat forgotten, we were
living with the potentiality of a pure war, which, nevertheless, failed to
materialize. What is pure war? It is a war of a single utterance: Fear! Fear!
Fear! Nuclear deterrence can be conceived of as pure war for the simple
reason that nuclear war never took place. However, such deterrence did
spawn a technoscientific explosion, inclusive of the Internet, and other
satellite technologies. And so one saw that the history of warfare, of siege
war, of the war of movement, of total war, of world war, all somehow merged
into pure war. That is, into a blockade, into nuclear deterrence. What had
been reached was the dimension of the integral accident, the moment of the

total destruction of the world. And there it stopped. Thus, at that stage, the whole concept of resistance to war became a new phenomenon. It was no longer about resisting an invader, German or other, but about resisting the military-scientific and industrial complex. Take my generation: during the Second World War you had resistance, combat against the Germans who invaded France. During the 1960s and 1970s there was resistance, among others by me, not against an invader, but against the military-industrial complex, that is against the invention of ever crazier sorts of weapons, like the neutron bomb, and 'Doomsday machines', something that we saw, for instance, in Stanley Kubrick's film, *Dr Strangelove*. Thus resistance to pure war is of another nature than resistance to an oppressor, to an invader. It is resistance against science: that is extraordinary, unheard of!

JA: At this point, I would like to ask a question on behalf of my students. For when I give a lecture on your work there is one question that comes up over and over again at the end of the session. It usually runs something like this: 'While I find Paul Virilio's analyses of pure war, and revolutionary resistance against the military-industrial complex extremely thought-provoking, I'm not quite sure what he is suggesting I actually *do* about these issues at the political level, at the level of the everyday?' What, in your view, should one tell them?

PV: Well, tell them the following. I was a militant against the atomic bomb. I joined leftist movements during the events of May 1968. But I must say that I became very disappointed about political struggles, since they appear to me to lag very much behind developments both within the post-industrial revolution and technoscience. Thus I am, and many people with me, out of phase with real existing political movements. I feel henceforth margin-alized, and the only action I can partake in takes place within the urban realm, with homeless people, with travellers, with people whose lives are being destroyed by the revolution brought about by the end of salaried work, by automation, by delocalization. You may call it street-corner work in a sense. For instance, together with Abbé Pierre, I was member of the High Committee for the Housing of Destitute People that was instituted by President [François] Mitterand and [Jacques] Chirac. I was on that Com-mittee for three years. That work has stopped now, but, for the last 15 years, I have been a member of private associations which work together with homeless people. These are Christian associations for the most part, and there lie my political activities these days. I am a disappointed man of the left. By the way, this is no fun because at the same time there is the rise of extremist political parties like [Jean-Marie] Le Pen's Front National, and so on.

Modernity and 'Globalitarianism'

JA: If we can broadly define modernity as an attempt to understand the present period by contrasting it with the recent past, what key features, *other*

than speed, would you point to in the contemporary era as being of most political significance?

PV: Globalitarianism! This is what transcends totalitarianism. Let's take an example, and excuse the neologism, but I cannot find another word. Totalitarianism covered my life, through the Second World War and through the period of nuclear deterrence, so you may say through Nazism first and then Stalinism. Totalitarianism was thus a central issue at that time. But now, through the single market, through globalization, through the convergence of time towards a single time, a world time, a time which comes to dominate local time, and the stuff of history, what emerges – through cyberspace, through the big telecommunications conglomerates, is a new totalitarianism, a totalitarianism of totalitarianism, and that is what I call globalitarianism. It is the totalitarianism of all totalities. Globalization, in this sense, is a truly important event. But, when people say to me, 'We'll become world citizens!', I reply, 'Forget it'. I was a world citizen long before globalization. After the war, I met Gary Davis, I went to meetings which took place in the Père Lachaise neighbourhood of Paris. I was 16–17–18 at that time. I was half Italian, I felt a world citizen. But when people say that Bill Gates, cyberspace and VR are the stuff of world citizenship, I say, no way! Globalitarianism is social cybernetics. And that's something infinitely dangerous, more dangerous even, perhaps, than the Nazi or communist brands of totalitarianism. It is difficult to explain globalitarianism but it is simple enough in itself. Totalitarianisms were singular and localized. Occupied Europe, for example, was one, the Soviet empire another, or China. That's clear. The rest of the world was not under totalitarianism. Now, with the advent of globalization, it is everywhere that one can be under control and surveillance. The world market is globalitarian. It is on purpose that I use the doublet total/totalitarian, and global/globalitarian. I consider this phenomenon a grave menace. It is manifest that Time Warner and the large conglomerates like Westinghouse, MCIWorldCom and all the other gigantic companies are not the exact equivalent of Hitler or Stalin. Yet, bad things are possible . . .

JA: Undoubtedly, I believe that one of the leading microelectronics conglomerates has even adopted 'One World, One Operating System' as its corporate logo . . .

PV: Yes. I can't stand it. Let me remind you of a sentence by Saint Just, one of the main protagonists of the French Revolution who got guillotined in the end, and who said once: 'There's this new idea in Europe: happiness.' Well, his other phrase, which I like very much is: 'If the people can be oppressed, even if they are not actually oppressed, then they are oppressed already.' It is a very interesting statement, because it says that the possibility is already the reality. Even if you are unaware of it, it has already happened. Hence the menace in the present period.

Lyotard

JA: Shortly after the publication of *Popular Defense & Ecological Struggles*, Jean-François Lyotard published his seminal book *The Postmodern Condition* (1984 [1979]). Does this book's renowned scepticism about the possibility of historical understanding, along with its rejection of the 'grand narratives' of progress, have any significance for you?

PV: Well, yes. We see here the fractalization of history, and Lyotard expressed – at an early stage – the end of the grand ideological narratives. But then, there was a question put by a Jewish friend of mine, Gerard Rabinowich – it was just after the book's publication, and we had gathered among friends in St Germain des Prés. My friend asked: 'Well, Lyotard, what do *you* have to say about that grand narrative called justice? Is that too a grand narrative belonging to the past?' A fine point indeed! Needless to say, Lyotard was at a loss for an answer. And indeed, to me, even if I accept the demise of the grand historical and ideological narratives in favour of the small narratives, the narrative of justice is beyond deconstruction. If that was the case, I would not be a Christian. You cannot deconstruct the absolute necessity of justice. Hence that issue remains intact. Justice cannot be divided up, be fractalized, on pain of descent into barbarism. We have reached a limit there.

Speed and Inertia

JA: While some cultural theorists are sympathetic to your critique of speed, few of them appear to appreciate the stress you place on the relationship between absolute speed and its 'Other' – *inertia*? Indeed, you have written a book about speed and the environmental crisis entitled *Polar Inertia* (1999 [1990]). Why is speed inextricably bound up with inertia?

PV: That is quite simple. When what is being put to work are relative speeds, no inertia obtains, but acceleration or deceleration. We are then in the realm of mobility and emancipation. But when absolute speed, that is the speed of light, is put to work, then one hits a wall, a barrier, which is the barrier of light. Let me remind you that there exist three recognized barriers: the sound barrier, which was passed in 1947 by Chuck Jaeger, the barrier of heat, which was crossed in the 1960s with rockets, at what is called 'escape velocity' and, finally, the speed of light, which is the effectuation of the 'live' in almost all realms of human activity. That is, the possibility to transfer over distance sight, sound, smell and tactile feeling. Only gustation, taste, seems to be left out of it. From that moment onwards, it is no longer necessary to make any journey: one has already arrived. The consequence of staying in the same place is a sort of Foucauldian imprisonment, but this new type of imprisonment is the ultimate form because it means that the world has been reduced to nothing. The world is reduced, both in terms of surface and extension, to nothing, and this results in a kind of incarceration,

in a stasis, which means that it is no longer necessary to go towards the world, to journey, to stand up, to depart, to go to things. Everything is already there. This is, again, an effect of relativity. Why? Because the earth is so small. In the cosmos, absolute speed amounts to little, but at that scale, it is earth which amounts to nothing. This is the meaning of inertia. There is a definite relationship between inertia and absolute speed which is based on the stasis which results from absolute speed. Absolute stasis leads – potentially – to absolute stasis. The world, then, remains 'at home' [in English], already there, given. I repeat: this is a possibility, a potentiality, but here we are back to what I said before: when the people are in a situation of possible inertia, they are already inert.

The Integral Accident

JA: You said before that 'modernity will only come to a halt within the ambit of the integral accident' . . .

PV: Indeed, the accident has always fascinated me. In fact, I am currently preparing my end-of-the-century book, the one for the year 2000, which will be on the integral accident, although I am writing another book before that. The integral accident is the one that integrates all others.

JA: Could you elaborate on the concept of the integral, or, generalized accident, a little further?

PV: Let me put it this way: every time a technology is invented, take shipping for instance, an accident is invented together with it, in this case, the shipwreck, which is exactly contemporaneous with the invention of the ship. The invention of the railway meant, perforce, the invention of the railway disaster. The invention of the aeroplane brought the air crash in its wake. Now, the three accidents I have just mentioned are specific and localized accidents. The *Titanic* sank at a given location. A train de-rails at another location and a plane crashes, again, somewhere else. This is a fundamental point, because people tend to focus on the vehicle, the invention itself, but not on the accident, which is its consequence. As an art critic of technology, I always try to emphasize both the invention and the accident. But the occurrence of the accident is being denied. This is the result of the hype which always goes together with technical objects, as with Bill Gates and cyberspace, for instance. The hype in favour of technology dismisses its negative aspects. It is a positive thing to have electricity, it is a wonderful device, but at the same time it is based on nuclear energy. Thus what these three types of accidents have in common is that they are localized, and this is because they are about relative velocities, the trans-port velocities of ships, trains and planes. But from the moment that the absolute velocity of electromagnetic waves is put to use, the potential of the accident is no longer local, but general. It is no longer a particular accident, hence the possibility arises of a generalized accident. Let me stress the

point by giving you two examples: the collapse of the stock exchange and radioactivity as result of a nuclear conflict. These examples mean that when an event takes place somewhere today, the possibility arises that it might destroy everything. A virus in an electronic network, an atomic leakage in Chernobyl – and that was not much, compared to a massive nuclear strike. Today's collapse of the stock exchange is a nice icon for the integral accident, in the sense that a very small occurrence changes everything, as the speed of quotations and programmed trading spreads and enhances any trend instantaneously. What happened a few weeks ago in [South East] Asia is an integral accident, well, almost an integral accident.

The Aesthetics of Disappearance

JA: In works such as *The Aesthetics of Disappearance* (1991a [1980]) you argue that modern culture is not simply characterized by speed but also by what you call the 'aesthetics of disappearance'. What is the relationship between speed and the aesthetics of disappearance?

PV: These are the cinematic effects, which are characteristic of the contemporary arts, and stem from film, television, video, etc. Let me explain: in ancient societies you had an aesthetic of *appearance*, which means that there was an enduring material support to the image: wood or canvas in the case of paintings; marble, in the case of sculptures, etc. Save for music, most aesthetics-related phenomena were phenomena of appearance, of emergence. Painting enabled the emergence of a figure on the canvas, which was subsequently 'fixed' with a varnish, for example, Leonardo's *Mona Lisa*. The image had appeared, as it were, through the medium of the canvas. The same could be said of Michelangelo, shaping *Moses* out of a block of marble, and that block of marble, suddenly *becoming* Moses. Persistence had a material basis. But with the invention of photography, of the photogramme, that is of instant photography, and of cinematography, from that moment onwards, one enters into an aesthetic of disappearance. At that stage, persistence is no longer material but cognitive, it is in the eye of the beholder. Things owe their existence to the fact that they disappear, like they do on a screen for instance. They are there, they appear, and are in motion, *because* they vanish afterwards. Quite different, therefore, from frescoes, paintings, etc. It is a sequential phenomenon. In the first phase, there was a cinematic effect of painting: if you take snapshots of an artist at work, you see that the painting develops in stages. But this is a very slow cinematic phenomenon as opposed to the film where we are talking about 24 frames per second – even up to 60 frames per second with special effects. So, this is the aesthetics of disappearance, it means that most of the art has vanished. Hence, by the way, the current crisis in contemporary art. Hence, too, 'the art of the motor'. When I write about *The Art of the Motor* (1995 [1993]), I mean that there has been a motorization of art. And, by 'motor', I mean the French cinematographic word '*moteur*', for 'action'! This motorization of art is a very important phenomenon, and you cannot come to grips

with the current crisis in the contemporary arts – I am thinking of *documenta* in Kassel, among others – without it (Joly, 1996). All branches of the arts are involved in this motorization, that is, in acceleration.

JA: So, you are arguing that the crisis in the contemporary arts is the direct outcome of motorization?...

PV: Yes, it is the result of the motorization of images. Let's take ships, for instance, and compare the grace of a sail-boat with a motor vessel: you're not talking about the same kind of marine vessel any longer. The same holds true for figurative images: whether they are from paintings, or from photo stills, or the cinema, or video: it's not the same. You must see that. Meanwhile, photography and cinema have influenced painting. They have also influenced the theatre, and other realms too. Motorization has exerted its influence over art in general. Every time there is a gain, there is a loss too. By losing the slow pace of the revelation of things, we have lost one sense of time in favour of another. Let me give you another example: the moment we acquired the mechanical lift, we lost the staircase. It became the service or emergency staircase, and was no longer the magnificent grand staircase of old. But we gained in speed – as is always the case. When transatlantic air services were invented, we incurred the loss of the ocean liners. This holds true in all possible realms.

Foucault and Baudrillard

JA: Much of your recent work is concerned with cyberspace and imaging technologies of various kinds such as VR. However, it appears to be less influenced by Jean Baudrillard's writings on the nature and impact of *Simulations* (1983) and 'hyperreality,' and more by Foucault's work on surveillance in *Discipline and Punish: The Birth of the Prison* (1977 [1975]). Why is this?

PV: *Discipline and Punish* is the source, obviously. Let me remind you that when Foucault published *Discipline and Punish*, one of his collaborators – he had quite a few of them at the time – was Jacques Donzelot. And Jacques Donzelot happened to sit on the examination board of one of my students who was doing research on prisons. We were working on prisons together, on the panopticon and so on, as part of the college curriculum at the time, and that was before *Discipline and Punish* came out. The proof of that is that the illustrations provided in Foucault's book can be directly traced to my student's thesis! His name, incidentally, is Carthoux, and his thesis – for the Ecole Spéciale d'Architecture – was entitled 'The Place of Detention'. So, whether there is mutual influence or not, there are, again, clear parallels. Another link is of course my work about war and its particular field of perception.

Now, as far as Baudrillard is concerned, there is for sure something about his work that I have never liked at all, and that is his concept of

simulation. I do not believe in simulation. To me, what takes place is substitution. Seminars have already been convened on this theme. The reason why is that I believe that different categories of reality have unfolded since the beginning of time, from the Neolithic Age to the present day. This means that reality is never given, but is the outcome of a culture. And thus we have a category of 'class I reality', and then there is a simulation of that reality, through a new technology, such as photography, or some other thing, or VR, for instance, and then you have a fresh substitution, a second reality. Hence simulation is a mere intermediary phase, without import. What is important is substitution; how a class I reality is substituted by a 'class II reality', and so on, up to the 'nth' reality.

JA: For you, then, one class of reality is continually substituted by other realities?

PV: Well, reality is produced by a society's culture, it is not given. A reality that has been produced by one society will be taken over, and changed by another, younger society, producing a fresh reality. This happens first by mimicry, then by substitution, and the original reality will, by that time, be totally forgotten. Take, for instance, the reality of the ancient Egyptians, of the Chinese of thousands of years ago: we cannot make any sense out of it, we are clueless about what it looked like, about what it sounded like.

JA: You talked before of the 'disappearance aesthetic'. At the same time, Baudrillard suggests that the advent of simulation and hyperreality have led to the 'disappearance of the social'. Isn't there some kind of connection between your work and his?

PV: Absolutely none whatsoever. As I have said and repeated often: there is a nihilistic dimension in Baudrillard's writings which I cannot accept. It is quite clear to me that Baudrillard has totally lost faith in the social. To me, this is sheer nihilism. I have not at all lost faith in the social. First of all, I believe that the social eludes the so-called social sciences, and always has – that's why I am not a sociologist! So I am disappointed, and very much so, about politics, but I am not disappointed by the social. You need only to go into the streets, and meet the poor: they're extraordinary, superior people. The social drama leaves the stunts of the political class far behind. The power and resilience of individual people in the streets puts the intelligence of today's political leaders to shame. And as far as the social scientists are concerned, the less said the better!

Technological Culture

JA: Would you say that your work on the aesthetics of disappearance is characterized by a disenchantment with the modern world? Do you advocate a return to some kind of religious sensibility, one that might place limits, for instance, on the social effects of cinematic disappearance?

PV: I believe that, without some religious culture, it doesn't matter which, one will never be able to understand technological culture and cinematics. I believe that a society, a society which has moved to such an extent into virtuality, will not be able to advance further, without an appreciation of moral virtues, that is, of mystical thought. I mean by that all that has been contributed by philosophers and theologians, of all religions, not only Christianity. The new technologies bring into effect the three traditional characteristics of the Divine: ubiquity, instantaneity and immediacy. Without some cultural familiarity with these themes, mediated by Christianity, Protestantism, Buddhism, Judaism, Islam, etc., they remain incomprehensible. One cannot come to grips with the phenomenon of cyberspace without some inkling of, or some respect for, metaphysical intelligence! That does not mean that you have to be converted. I believe that the new technologies demand from those who are interested in them that they have a substantial measure of religious culture – not merely some religious opinion. I may emphasize that all this has nothing to do whatsoever with 'New Age', and the like . . .

JA: Don't you think that some people invest technology with a mystical dimension already?

PV: Yes, of course. 'Transhumans', New Age types, cyberpunks and the like. There are plenty of them in the United States, you need only to read Mark Dery's book.[15] I think this is a scary development, leading up to the Heaven's Gate sect, whose members committed suicide in order to depart for the stars. But this is not the sort of thing I am talking about. My point is simply that without a knowledge of the history and philosophy of religions, one cannot come to grips with what I have termed 'technological fundamentalism'. Which is the possibility of a *Deus ex Machina*. Just like there is a Jewish fundamentalism, or an Islamic or Christian one, you have also now got a technological fundamentalism. It is the religion of those who believe in the absolute power of technology, a ubiquitous, instantaneous and immediate technology. I think a balance is needed to remain free vis-a-vis technology, a balance which consists of a knowledge of religion, even if this entails the risks of fundamentalism and intolerance. Without this knowledge one is without balance, and one cannot face the threats of technological fundamentalism, of cyberspace and of the extreme lunacy of social cybernetics.

The War Model

JA: To many people, your work in *Bunker Archeology* and later is associated with what has come to be known as 'the war model'. Could you explain this model?

PV: Well, as a child of the Second World War, a 'war baby', you may say that the war was my university. I learned to know the world through the fear

brought about by war. So for me the archetypal war was the Second World War, which lasted from 1939 to 1945. This war produced both Auschwitz and Hiroshima – in fact I keep a stone from Hiroshima on my desk. The war model is a method of total control over a territory and of a population. The aim is to have total control of the population, to bring a whole region or a continent into subjection, through radio, telephone, and a combination of both of these was already very much there during the Second World War. Hence my work is about defining total war as a conflict model, in all realms, not only in the realm of the military, but also in the realm of the social, and in what I would call 'colonization'. Colonization is already a model of total war. To quote [Jules] Michelet, the 19th-century French historian: 'Without a powerful navy, there are no colonies.' It is the power of technology which makes colonization possible; maritime power is one. Later, other forms of colonial power followed. Thus it is clear that my writings on the war model are linked to the history of the colonial empires, that is, to the times of colonial imperialism and ideological totalitarianism.

JA: Does the notion of the war model flow only from the Second World War? Or, is it linked in some way to your resistance to the Algerian war? Or both?

PV: What is for sure is that, as far as my approach to war is concerned, I have passed through three stages in my life: I suffered from the Second World War as a child; I was called into military service during the Algerian War and served six months in Algeria – in the Aurès, the mountainous region south of Constantine. And I opposed nuclear war, that is, the total war *par excellence*. So the three wars that have moulded me, we could say, are the Second World War, the Algerian war and the epoch of nuclear deterrence. These wars, of course, carry the seeds of their followers, especially the Malvinas War and the Persian Gulf War.

The War of Images

JA: In the early 1980s you produced one of your most well-known books, *War and Cinema: The Logistics of Perception* (1989a; [1984]). In this book you discuss the use by the military of cinematic technologies of perception. Why is the analysis of the relationship between war and the cinema so important for you?

PV: Because images have turned into ammunition. Logistics deals in the first place with the supply to the front-line of ammunition, energy and so on. The front-line is constantly being replenished with ammunition, energy and foodstuffs. Now, from the end of the First World War onwards, but especially with the Second World War, the front-line is also being fed with images and information. That means that a 'logistics of perception' will be put in place, just as there is a logistics of fuel supplies, of explosives and shells. For instance, one can observe that the First World War was fought on the basis of maps. Maps were being drawn, lines were sketched on them and

height-lines established, whereupon the artillery was told where to fire. But at the close of the war, maps were being displaced by aerial photography, shot by planes and then assembled on tables like mosaics – I did that kind of job myself, when I was a HQ staffer. How did that come about? Well, because the destructive power of artillery is such that the ordinary topographical landmarks simply disappear – here, again, the aesthetics of disappearance at work! Only film or photography keep the memory of the landscape as it was, and as it is constantly being reshaped. The film substitutes for the ordnance survey and, at the same time, architecture goes underground. It buries itself in the soil, in bunkers, in order to escape control from the skies. If you look at the Second World War, there was no bombing without photographs of the planned bomb site being taken back, being scrutinized with specialized equipment. Images thus become a product of extraordinary strategic importance. And if we switch to contemporary military conflicts, what you get are video missiles, unmanned miniature planes or 'drones', observation satellites and more wondrous things. War has morphed into images, into the eyes . . .

JA: According to you, war is now a war of images?

PV: Absolutely. It is impossible to imagine war without images. And, if possible, 'live' images.

Cyberwar in the Persian Gulf

JA: Your reflections on the so-called 'cyberwar' in the Persian Gulf were published as *L'Écran du desert* (1991c). What, for you, are the qualitative differences between conventional warfare and cyberwar?

PV: First, about the book's title. It is very important because there were three phases in the Gulf War. Two are well-documented, and the third has been named by myself: 'Desert Shield', 'Desert Storm' and then, '*Desert Screen*' – the latter is my invention. You may say the title is 'War TV'. The Gulf War was truly a war of images. This is because it was fought out, on the one hand, with drones, that is, with flying cameras on unmanned planes. On the other hand, one also saw Cruise missiles, which were making surveys all the time about where they were flying, with televised bombs which were streaming into Saddam's bunkers, with video missiles. A jet fighter pilot turns on his screen, fires a missile equipped with a camera, and the missile lights up what is on the horizon, while the pilot sees *beyond* the horizon. And, as soon as he sees an adversary, he directs the missile towards him. We have, therefore, now entered a type of war which is about directing images, hence the invention of C^3I – a type of war management which means command, control, communication and intelligence – a kind of (film) director's way of running a war, with images and information coming up from everywhere at once. One observes that in the very first armed conflict after the Cold War, the image is right in the middle of the mechanism. The

war is being directed straight from the USA, through communication satellites which are guiding the Patriot missiles. There is a kind of video-game war going on. This perfectly illustrates what I wrote seven years before in *War and Cinema*. In fact, quite a few friends told me that they couldn't make anything out of my book in 1984 but now, after the Gulf War, they tell me that they have got the message – seven years too late. So when there is talk today about the 'new war', the 'info war', the war of information, well, now we are in quite an uncharted territory.[16] It is quite clear that the USA is currently entering a period of great upheaval in military affairs. This means that the command of 'globalitarian', or total information, by the last remaining Big Power, leads to a repositioning of its powers. What we now see happening in its relations with Iraq goes a long way to show the limitations of this war of information, as far as the 'how-far-to-go', 'what-to-do', issues are concerned. It is very difficult to make pronouncements about these developments, save to say that 'cyberwar' manoeuvres have already taken place in Germany, and have been witnessed by my friend James Der Derian.[17] Here we enter a realm of electronic gamesmanship of which very little can be said. It's still quite tricky, and confidential. I am presently working on that, of course, but there is simply not very much open information about this war of information. What is certain is that the locale of war is no longer the 'geosphere', military geography, the realm of geostrategy, but the 'infosphere', cyberspace. We have entered a new world.

The War Machine: Deleuze and Guattari

JA: Before we leave the subject of war, could I ask you about your relationship to Deleuze and Guattari's philosophy and politics of desire? Their 'Treatise on Nomadology: The War Machine', in *A Thousand Plateaus: Capitalism and Schizophrenia* (1987 [1980]) is obviously influenced by your writings about pure war, military space, speed and power. But what, if anything, have you learnt from their writings and how has it influenced your thinking?

PV: I do not think there is influence here but, rather, convergence. If you care to look in *A Thousand Plateaus*, I believe there are 27 references to my work. That's not nothing. Now, I am not stating this in order to claim as my own the qualities of Deleuze and Guattari, whom I have loved very much, but to emphasize that, here again, there were parallels at work. However, I felt rather closer to Deleuze than to Guattari because I am totally devoid of any psychoanalytic background or culture. Guattari and I were, though, on extremely friendly terms, and we did things together. You see, Deleuze was, like me, a man of 'the event', someone who not only worked with the concept of the event but who also rose to the occasion when an event occurred and who reacted with feeling, as befits a phenomenologist. Hence, to me, the interest of *A Thousand Plateaus* lies chiefly in its liberating effect from a certain kind of academic discourse, one which belonged to the end phase of structuralism. I am not talking about Foucault here. I am referring to

[Claude] Lévi-Strauss, to [Louis] Althusser and so on. Here, again, liberation took on a kind of musical hue. For me, *A Thousand Plateaus* is also a form of, shall we say, '*ritornello*' (a recurring couplet or refrain in a folk song), as they called it themselves. So what I like about Deleuze and Guattari is their poetic language, a language which enables them to convey meanings which cannot be conveyed otherwise . . .

JA: Do you mean that Deleuze and Guattari have a poetic understanding of the world, as opposed to a prosaic or an analytical one?

PV: Yes, but even better, a 'nomadological' understanding of the world – they have that word of their own after all – stemming from the fact that the world is constantly on the move. Today's world no longer has any kind of stability; it is shifting, straddling, gliding away all the time. Hence their ideas about superimposition, strata, layers and cross-currents. Ours is a world that is shifting, like the polar ice-cap, or 'Continental Drift'.[18] Nomadology is thus an idea which is in total accordance with what I feel with regard to speed and deterritorialization. So, it is hardly surprising that we clearly agree on the theme of deterritorialization.

The Gaze of the Machine

JA: Your interest in the acceleration and automation of perception was further developed in *The Vision Machine* (1994b [1988]). What was your central aim in that book? . . .

PV: There was, for me, this crucial development, of which nobody, once again, seemed aware of. Everybody was talking about Orwellian remote control and surveillance, with cameras all over the place, scanning the city. I agree, it is scary, the Orwell scenario, police cameras everywhere. But there is something worse, which gives its title to *The Vision Machine*: a device to see with. For it means that an inanimate object now can see *for itself*. A remote camera, for example, is for the use of a policeman or a security guard. There is someone behind it who does the viewing. Nothing special about that and nothing to worry about. But behind the vision machine there is nobody. There is only a micro-receiver, and a computer. A door can 'recognize' me, as it were. This set up without a human spectator means that there is now vision without a gaze. And let me remind you that the research on the vision machine – that is its official name, I did not invent it – was for the Cruise missile! Cruise missiles were equipped with detection radar and built-in mapping systems. They had maps charting their course towards Teheran or Leningrad. The device was constantly surveying the ground with radar and checking it against the map to make sure the missile was on course. No need for a vision machine here, the radar does the work. But, at the final approach stage, a vision machine is necessary, in order to film the target and choose the window to enter the building or the door to the bunker. These vision machines are an improvement on what are called

'shape recognition devices'. They are like those industrial machines that punch holes in metal sheets. They come equipped with a microchip that enables them to recognize the shape of the sheet they're supposed to punch holes in. This is termed contour recognition, which is not fully fledged vision yet. A further development has led to the devising of highly sophisticated vision machines for Cruise missiles. This means that Cruise missiles are endowed with a gaze even though it is an automatic one ...

JA: But all this is not being carried out for the machines themselves. It is being carried out by, or at least on behalf of, human beings, even if none are directly involved? ...

PV: No, nobody is there. Well, ultimately, yes, of course, but when you've got a camera, you make a film, and then you view it. Here the object is looking *for itself*, the Cruise missile looks for itself. To me, something like this is an unheard of event. Imagine this table we are sitting around starting to look for itself!

The Transplant Revolution

JA: In *The Art of the Motor* (1995 [1993]) another shift seems to take place in your thinking. For, in that work, you focus on the invasion of the human body by technoscience. Could you explain your interest in what you call 'the transplant revolution'?

PV: Oh yes, this is the 'Third Revolution'. In the realm of speed, the first revolution was that of transportation, the invention of the steam engine, the combustion engine, the electrical motor, the jet engine and the rocket. The second revolution is the revolution of transmission, and it is happening right now in electronics, but it began with Marconi, radio and television. The third revolution, which is intimately linked to the minaturization of objects, is the transplantation revolution. By this term I mean that technology is becoming something physically assimilable, it is a kind of nourishment for the human race, through dynamic inserts, implants and so on. Here, I am not talking about implants such as silicon breasts, but dynamic implants like additional memory storage. What we see here is that science and technology aim for miniaturization in order to invade the human body. This is already true of the cardiac stimulator, a device I am especially interested in, since much of my work is about rhythms and speed, and the cardiac stimulator is what *gives* the rhythm to the life of a human patient. I am writing about that in my next book, and about the case of those twin sisters, which were prematurely born, and who had a cardiac stimulator implanted in them practically from birth: their life-rhythm, thus, is that of a machine, a stimulator. Here is an icon of the transplant revolution, of the human body being eaten up, being possessed by technology. Technology no longer spreads over the body of the territory, as with railways, motorways, bridges and large factories, but now enters the innards of the human body ...

JA: And, in your view, this is a negative development?

PV: It is absolutely scary. It means that the machine enters into the human. It is no longer a prosthesis, it is a new eugenicism in fact ...

JA: Nonetheless, this is a difficult position to maintain with someone whose life may depend upon the insertion of a cardiac stimulator?

PV: Well, here again you see how the indisputable is always put forward in order to foster extremely dubious measures. It all starts by saying how great those things are for people who need them, and then comes the day when it is being forced upon people who don't need or want them. There lies the problem.

JA: Is this the basis of your criticisms, in *The Art of the Motor,* (1995 [1993]) of the Australian performance artist Stelarc?

PV: Yes. This is because Stelarc has opted for 'eugenic suicide'. Instead of committing plain suicide, he does so by grafting himself into various gizmos, so that in the end, there will be no Stelarc left, pffuuut!, gone! Only a pure automaton will remain. That being said, his work is absolutely fascinating.

JA: How does the transplant revolution relate to your concept of 'endo-colonization'?

PV: First, endo-colonization happens when a political power turns against its own people. I have lived through this during the Second World War. Totalitarian societies colonize their own people. You cannot understand Nazi Germany without accounting for the fact that it had been deprived of colonies and embarked on a programme of colonization at home. So Germany's colonization was a programme of colonizing the East (*ostkoloni-zation*), inclusive of Poland, Russia and France for that matter. But, by necessity, Germany's colonization was also a logic of endo-colonization, that is, to force upon its own population the fate that the British – or the French – had forced upon the Aboriginals in Australia or the blacks in South Africa, or, in other words, brute force. And, in the case of the transplant revolution, what takes place is an endo-colonization of the human body by technology. The human body is eaten up, invaded and controlled by technology ...

JA: Are you suggesting that the idea of the transplant revolution is identical to the concept of endo-colonization?

PV: Yes, it is, but on the person, on the human body. There is no coloniz-ation without control of the body. We are here back to Foucault, evidently. Every time a country is being colonized, bodies are colonized. The body of the Negro, of the slave, of the deportee, of the inmate of the labour camp, is a

colonized body. Thus technology colonizes the world, through globalitarianism, as we have seen earlier, but it also colonizes bodies, their attitudes and behaviours. You need only to watch all those nerdy 'internaut' types to see to what extent their behaviour is already being shaped by technology. So we have this technology of absorption, or as the Futurists used to say: man will be fed by technology, and technology will colonize human behaviour, just as television and the computer are doing, but this last form of colonization is a much more intimate, and a much more irresistible form. This is scary! It is neo-eugenicism, endo-technological eugenicism!

Cyberfeminism

JA: In *Open Sky* (1997 [1995]) you make reference to 'cyberfeminism', a movement which some see as one of the most important theoretical and political developments in the past decade with regard to our understanding of the human body, technology and subjectivity. Could you describe your response to these developments?

PV: Well, I have become very interested in the notion of 'cybersexuality'. Even if it is still at the gimmick stage, it is a well-known fact that research is very advanced in the field of 'tele', 'remote' or cybersexuality, especially in Japan. And thus, I am quite baffled to see feminists – far from opposing, like I do, the conditioning of the female body, or the male body for that matter – projecting themselves as followers of cybersexuality. I cannot understand it. I cannot understand why opposing machismo does not also imply opposing cybersexuality. Do the cyberfeminists really believe that cybersexuality is going to liberate them? Come on. . . . Give me a break!

JA: Are you arguing that feminists have much more to lose than they have to gain by embracing cybernetic technologies?

PV: I believe that the question of technology is predicated upon the question of sexuality, be it male or female. If cyberfeminists do not want to understand the replacement of emotions by electrical impulses – because that is what we are talking about – the replacement of emotional involvement by electrical impulses, it is clear that they will never be liberated. Instead, they will become the servants of a new type of sexual control. Remote or tele-sexuality is by definition machine-controlled sexuality.

JA: The American cyberfeminist, Donna Haraway (1985) has stated that she 'would rather be a cyborg than a goddess'. What is your reaction to such claims?

PV: (laughs – out loud) I want to be neither a God nor a cyborg! I want to be man. It suffices to be a man – or a woman. As I said before, 'Man is the endpoint of the wonders of the universe'!

Georgio Agamben

JA: One final question. Are there any other cultural theorists writing today whose work you admire?

PV: Hm, this is a difficult question to answer, but, yes, there is one book which I've just reviewed, and liked very, very much. It is Giorgio Agamben's *Homo Sacer: le pouvoir souverain et la vie nue* (1997). In ancient Roman law *Homo Sacer* means a human being whose life is considered worthless, meaning someone whom one could kill without committing homicide, and who is also unfit for sacrificial purposes. Such a man stands condemned to summary execution. Killing him is no worse than squashing an insect. I must say I have a boundless admiration for Agamben. I was asked by several papers to give my choice of the best books of the year and I mentioned *Homo Sacer*. It is a remarkable book, and one with which I could not agree more.

Translated by Patrice Riemens

Notes

1. This interview was conducted on 27 November 1997 at the Ecole Spéciale d'Architecture in Paris. I would like to thank Mike Featherstone for his encouragement, Ken Harrop for personal and institutional support, and Mark Little for practical help in setting up the interview. However, I am also heavily indebted to Magali Fowler for interpretation and to Rob Turner and Patrice Riemens for translating numerous letters, tapes and texts. Lastly, I am especially grateful to Paul Virilio for giving his time and energy so freely to this project.

2. See, for example, Kerrigan (1997: 14–15).

3. Gestalt psychology is a body of thought which springs from the experimental studies conducted by German psychologists like Max Wertheimer and Kurt Koffka around 1910. Briefly, the Gestaltists argued that philosophical, artistic, scientific, perceptual and aesthetic configurations endowed with qualities as a whole could not be characterized simply as the totality of their parts.

4. 'Hypermodernism' is a term I reserve for a forthcoming book on Virilio.

5. Here, Virilio is referring to Daniel Halévy (1872–1962). Halévy was an anti-clerical radical French historian and well-known 'Dreyfusard'.

6. Paul Dirac and Werner Heisenberg were both instrumental in developing Einstein's theory of relativity and quantum mechanics in the early part of this century. For a recent and accessible introduction to this fascinating but complex field see Milburn (1996). Henri Bergson (1859–1941) founded a philosophy based on 'creative evolution' and, like Virilio, was much preoccupied with questions relating to the nature of knowledge, time and religion. See, for instance, Bergson (1910).

7. Abbé Pierre is a figure held in high regard in France for his championing of the poor.

8. See, inter alia, Marcel (1950) and Ellul (1965).

9. Sir Francis Galton coined the term eugenics in 1883. Eugenics is, of course, the 'science' which purports to 'improve' humanity through the application of genetic policies.

10. Robert Morris (1931–) is an American minimalist sculptor and Land artist. However, in recent years he has turned increasingly to figurative painting. For a general overview that includes Morris' work, see, for example, Lucie-Smith (1995: 74–133).

11. Archigram is the name of an English utopian architectural group, founded in 1960 by Peter Cook (1974). It disbanded in 1975. Paulo Soleri (1919–) is an Italian architect who, since the 1950s, has worked in the USA on alternative planning schemes at the Cosanti Foundation in Scottsdale, Arizona (see Wall, 1971). The science fiction inspired Metabolic Group in Japan was initiated by Kenzo Tange (see Kurokawa, 1972).

12. For a somewhat different explanation of the break up of Architecture Principe see, I. Scalbert and M. Mostafavi, 'Interview with Claude Parent', in Johnston (1996: 49–58).

13. See, for instance, Mandelbrot (1977).

14. As indicated in the references below, *Pure War* (1997) is the title of a recently revised book-length interview with Virilio conducted by Sylvère Lotringer. The English edition of *Popular Defense & Ecological Struggles* (1990 [1978]) does not contain an Introduction.

15. Virilio is referring to Dery (1996).

16. 'Info War' is the title of the Postscript in the new edition of *Pure War* (Virilio and Lotringer, 1997: 165–86).

17. See, for example, Der Derian (1992).

18. 'Continental Drift' is the title of a chapter in *Open Sky* (1997 [1995]).

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