Virilio, Stelarc and 'Terminal' Technoculture

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CCORDING TO THE AMERICAN poet John Giorno, 'All great art is a mistake – it's like falling down the stairs and seeing stars – and then you realize what the mistake is, and you continue doing it. You realize what you've done good' (1994: 101). Viewed from this perspective, the milestones of 20th-century culture offer a series of happy accidents or mistakes, as different creative spirits make successive lucky breaks from this or that status quo.

From Paul Virilio's point of view, the most significant 'accidents' of 20th-century technoculture require confrontation rather than celebration. Remarking that his generation is 'obliged to acknowledge breakdowns and examine accidents' (1998a), and questioning whether technocultural accidents have ever really 'done good', Virilio aligns himself with those children of 'total war and post-war totalitarianism' – such as the East German writer Heiner Müller – who share his conviction that 'all the misery of the world arises from man's feeling that he can be improved by machines invented to take his place' (1997b: 7–8).

Explaining, 'I'm not afraid of fire! I'm not afraid of being burned' (1998b), Virilio might well define himself as a man caught within late 20th-century cultural crossfire or as Müller puts it, 'The man between the ages who knows that the old age is obsolete', but who feels that 'the new age has barbarian features he simply cannot stomach' (Müller, 1980: 137). Or, more accurately, Virilio is perhaps the man between the ages who knows that the most superficial aspects of the 'old age' are obsolete, but who shores past fragments against contemporary ruin, finding it almost impossible to look beyond the most barbaric aspects of the 'new age'.

By contrast, Virilio's principal technological bête noire, the Australian

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cybernetic performance artist Stelarc, seems to be the man beyond the 'old age', unable to stomach what he thinks of 'those old metaphysical distinctions between the soul and the body, or the mind and the brain', and alarmed that contemporaries should still attempt to justify or condemn new technologies in terms of 'obsolete desires' (1998).

Fervently resisting conceptual closure, but at the same time remaining firmly enclosed within their respective logics, Virilio's and Stelarc's conflicting priorities find eventual resolution in the work of what one might think of as 'new age' multimedia visionaries such as Stelarc's American contemporary, the video-artist Bill Viola. Confident that both past and present 'desires' await articulation in the 'new alphabet, new words, new semantics' and 'new grammar' (1996) identified by the mid-century technological avant-garde, and remarking, 'new technologies of image-making are by necessity bringing us back to fundamental questions, whether we want to face them or not' (1995: 257), Viola stirringly concludes:

Media art, in its possession of new technologies of time and image, maintains a special possibility of speaking directly in the language of our time, but in its deeper capacity as art, it has an even greater potential to address the deeper questions and mysteries of the human condition. (1995: 257)

In much the same way, the American digital composer Steven R. Holtzman argues that 'as we approach the twenty-first century, we can return to an integrated view of art, science, and the mystical' (1995: 292).

Virilio comes closest to Viola's and Holtzman's conclusions in the more spontaneous speculations of his interviews, rather than in the cautiously argued hypotheses of his books. For example, finding present cultural transitions 'in many ways comparable to the Renaissance' (1988: 57), and remarking that few 'explorers' are 'ready and able to analyze' the 'great opaque block' of contemporary imaging, he calls for interdisciplinary collaboration between 'Scientists, artists, philosophers', in 'a kind of "new alliance" for the exploration of the nebular galaxy of the image'.

Everybody has a piece of it. Nobody understands that he has to put his piece in a common pot, and that he has to try to enter that sphere of reciprocity and intelligence that made for the phenomenon of the Renaissance, in which everyone could participate. Even before being a question of the organization and geometrical perfecting of the city, the Renaissance was first of all a question of organizing a way of seeing. (1988: 61)

While Virilio clearly hesitates before notions of 'tele-reality at a distance', protesting that 'That's an unheard-of phenomenon like the splitting of the atom, but here what's being split is reality', he concludes this interview by acknowledging that 'this isn't to say that one won't be capable of reconstructing a reality through the new images of tomorrow' (1988: 61).

Reassessing the viability of this kind of 'alliance' between science, art

and philosophy, Virilio's most intransigent recent writings and interviews envisage increasing antagonism between those faithful to 'the god of transcendence' and those converted to 'techoscience' and 'the machinegod' (1996b: 81). Indeed, while Virilio insists that he 'is not opposed to technology or technological performance' (1996a: 122), and argues that 'it's quite evident that my writings on art are all clearly in favour of technology' (1996a: 117), his single-minded discussion of things he 'cannot stomach' in L'Inertie polaire (1994) and Open Sky (1997a) consistently obscures the subtlety of his other recent accounts of those pre-technological, partially technological or wholly technological 'resistant' practices that he most passionately champions or condemns.

As becomes apparent, the full complexity of Virilio's vision is most clearly evinced by the tension between his blistering attacks upon what he takes to be the neo-fascist or neo-eugenicist artistic 'resistance' of the modernist and postmodern technological avant-gardes, in *The Art of the Motor* (1995), and his equally fervent advocacy of the kinds of positive artistic 'resistance' that he outlines in his interviews with Philippe Petit in *Cybermonde*, *la politique du pire* (1996b) and with Marianne Brausch in *Voyage d'hiver* (1997b).

Generally speaking, Virilio's ambiguous responses to the postmodern avant-garde coalesce most obviously in his responses to Stelarc, whom *The Art of the Motor* both counts among postmodern culture's foremost 'fallen angels' (1995: 111), and discounts as little more than a human 'laboratory rat' (1995: 113). Subsequently offering Stelarc's agenda more moderate consideration, Virilio explains:

I think of Stelarc as being the Antonin Artaud of technology – that's what I find so interesting in his work... He's an artist whose work has religious dimensions without really being aware of it! He thinks that technological forces will allow him to transfigure himself – to become something other than what he is. An angel, an archangel, a mutant, a cyborg or whatever. There's a sort of devotion in his work to the machine god – to a *deus ex machina* – and Stelarc is its prophet.... But for me, man is the last of God's miracles. Hence my rejection of all eugenic theories based upon the argument that man is only a prototype awaiting improvement. And Stelarc's research is quintessentially eugenicist in the sense that he's trying to improve his condition. His is a kind of body-building, a kind of body-art! And I'm fundamentally opposed to eugenics! I believe that man is finished! (1998a)

As Virilio indicates, his technological and existential priorities hover midway between those of Stelarc and Viola. For Stelarc, the future can best be improved by 'cyber-systems' redressing the 'technophobic streak and Frankensteinian fear' generated by 'platonic metaphysics envisioning a soul driving a zombie-like body', and enabling the body 'to function more precisely and more powerfully' (1995: 46–8). For Viola, media art should 'address the deeper questions and mysteries of the human condition' in order to restore 'balance between the emotions and the intellect' and 180

reintegrate 'the emotions, along with the very human qualities of compassion and empathy, into the science of knowledge' (1995: 257).

But for Virilio, individual and planetary survival depend upon humanity's dual capacity to curb its compulsion to engineer eugenic calamities rivalling the worst nightmares of 'total war and post-war totalitarianism' (1997b: 7), and to cultivate its capacity for tangible, real space, face-to-face relationships. Anticipating both the increasing mediatization and 'Sicilianization' (1996c: 69) of a society fraught by local civil wars, Virilio concludes that 'Salvation lies in writing and speaking' (1996b: 85) rather than in the 'alternate interfaces' that Stelarc associates with 'extended fields of operation' (1998). Concluding that humanity's presently 'finished' – or completed – condition already provides the best conditions for survival in a world stabilized by a sense of 'here' and 'now', and calling for more 'vigilance regarding the ethics of immediate perception' (1997a: 102), *Open Sky* urgently warns:

How can we really live if there is no more *here* and if everything is now? How can we survive the instantaneous telescoping of a reality that has now become ubiquitous, breaking up into two orders of time, each as real as the other: that of presence here and now, and that of a telepresence at a distance, beyond the horizon of tangible appearances?

How can we rationally manage the split, not only between virtual and actual realities but, more to the point, between the *apparent* horizon and the *transapparent* horizon of a screen that suddenly opens up a kind of temporal window for us to interact elsewhere, often a long way away?' (1997a: 37)

In much the same way, *The Art of the Motor* insists that the 'question of freedom' is 'central to the problematic of technoscience and of neuroscience', anxiously asking to what extent the individual can 'avoid sensory confusion', 'keep his distance when faced with the sudden hyperstimulation of his senses' and generally resist technological 'dependency or addiction' (1995: 118–19). Briefly, if Stelarc is 'the Antonin Artaud of technology' (1998a), Virilio seems to be the Hamlet, Prince of Cyberculture, not so much pondering 'to be or not to be', as wondering whether it will even prove possible 'to be' on a planet 'not only polluted but also shrunk, reduced to nothing, by the teletechnologies of generalized interactivity' (1998a: 21). Generally envisaging technologically enslaved rather than technologically enhanced existence, *Open Sky* concludes: 'Service or servitude, that is the question' (1997a: 20).

Somewhat as his 'bloodbrother' (1997a: 8), Heiner Müller explains that he stood 'with one leg on each side' of the Berlin wall because 'no other position' seemed 'real enough', Virilio seems to find – or place – himself in a similarly 'schizophrenic position' (Müller, 1990: 32–3). On the one hand, he celebrates real space: a realm in which the material and the metaphysical comfortably coexist, where 'True distances' and 'the true measure of the earth, lie in my heart' (1997a: 64), and where 'The Old Testament . . . seems

something that I've personally experienced' (1997b: 54). On the other hand, particularly in *Open Sky*, Virilio struggles against the currents of real time and 'the speed of liberation from gravity' (1997a: 2), contemplating a limbo offering 'no space worthy of the name' (1997a: 3), and no 'action worthy of the name' (1997a: 131), where he feels we may well become 'at once exiled from the exterior world' and 'the interior world' (1994: 165).

As Virilio explains in *Voyage d'hiver*, he associates 'action worthy of the name' with the responsibility of those 'men of good will' (1997b: 88) working to improve society, and waging a war of resistance against what *The Art of the Motor* thinks of as 'the *quiet legalization of disinformation*, in total mediatization' (1997b: 96). Both sharing Félix Guattari's sense that 'It is in underground art that we find some of the most important cells of resistance against the steam-roller of capitalistic subjectivity' (1995: 90–1), and shunning such mediatized 'underground' art as Stelarc's research, Virilio repeatedly seeks inspiration from the past, somewhat as Joyce's Stephen Dedalus seeks strength from his 'Old father' (1972: 253).

The Art of the Motor, for example, commends the example of 'the ancient stoic', likening technoculture to what Petrarch damns as 'that plague of phantoms who dissipate our thoughts and whose pernicious variety bars the way to luminous contemplation' (1995: 61), while Voyage d'hiver defends the function of the artist by invoking romantic revelation:

'The artist is surely the most authentic observer: he intuits the meanings of things, and has the ability to identify and understand the most important aspects of fugitive and unfamiliar reality', writes Novalis. Here we have the perfect definition of perceptive energy, iconic energy or more precisely, informational energy. (1997b: 102)

Nothing could be less accurate, in other words, than Cybermonde's modest suggestion that Virilio merely conducts 'statistical research' in order to 'avert disaster' (1996b: 64). Far from simply stacking statistics, Virilio attempts to decode such omens as the 'signs in the sky', 'in the clouds' and 'in the water' that he associates with 'the year of signs, 1986, rich in major accidents' (1996c: 129), seeking out calamities that 'exceed ... statistical approximation' (1996c: 179), asking questions that 'nobody else asks' (1996c: 140), and working as it were against the clock and beyond the clock, in order to 'analyze' and 'overtake' terminal symptoms of 'accident' and 'negativity' (1996b: 87). Confronted by what he thinks of as a 'superhuman' (1996b: 92) task, Virilio's prophetic writings evaluate 'unfamiliar reality' as best they may, reading between and beyond the lines – across disciplines, continents, cultures and centuries - in terms of an immense array of multicultural paradigms drawn from Old and New Testament writings, ancient and modern philosophy, urban and sociological research, folkloric and romantic wisdom, and modernist and postmodern aesthetics.

I'm a painter who writes, you know! Surely you feel that my books are very visual – they're very, very visual books! They're not words, they're visions! I'm painting, you know! If I can't see it I can't write about it. (1998a)

Yet despite his sense of being a theoretical artist — or an artistic theorist — orchestrating a 'logic of extremes', Virilio stubbornly predicts 'the end of contemporary art' (1998a), and in consequence systematically overlooks many of the most 'luminous' contemporary technocultural practices, at best explaining: 'I always consider the worst. I'm forced to consider the worst!' (1998a). Arguably, Virilio's method is far more subtle than this. Censuring 'the worst' of the present in terms of exemplary precursors, he never allows the reader to forget 'the best' of the past. And censuring 'the best' of the present, by employing a logic of 'negative extremes', according to which things can only go from bad to worse, he never allows the reader to forget 'the worst' of the present. Heads, the past wins; tails the present loses.

However much Virilio generally claims to address the 'global dimensions' of contemporary culture, his principal examples in *L'inertie polaire* are self-consciously restricted to realms of general social mediocrity 'without any relation to "artistic" representation' (1994: 10). But why should analysis purporting to address the 'global' ignore positive artistic practices? Again, Virilio's explanation is deceptively simple. 'That wasn't my concern here. My main concern here was the general impact of technologies' (1998a). Significantly, wherever Marshall McLuhan's earlier study of global technoculture – *Understanding Media* (1964) – finds potential light, Virilio finds potential darkness, generally deploring almost everything that left 'McLuhan drooling' (1995: 10).

Yet at first sight, McLuhan and Virilio seem to share identical values. Both address what McLuhan calls 'the transition from mechanical to electric technology' and both agree that 'the peculiar drama of the twentieth century' derives from the difficulty of living with old and new technologies 'at the same time' (1964: 297). Likewise, both endorse Novalis's dictum that artists 'understand the most important aspects of fugitive and unfamiliar reality' (Virilio, 1997b: 102), and both generally conclude that 'The artist picks up the message of cultural and technological challenge decades before its transforming impact occurs' and builds 'models ... for facing the change that is at hand' (McLuhan, 1964: 70).

In turn, just as McLuhan notes that the artist's ability 'to sidestep the bully blow of new technology' and 'parry such violence with full awareness' is often fatally frustrated by 'the inability of the percussed victims, who cannot sidestep the new violence, to recognize their need of the artist' (1964: 71), Virilio regrets that his most visionary writings seem fated to fall upon permanently percussed Parisian ears. 'Neither Baudrillard nor I are accepted here – we're not good Cartesians. There's no sensitivity here to irony, to wordplay, to argument that takes things to the limit and to excess. This kind of thought is virtually forbidden' (1998a).

At its most sensitive, Virilio's research memorably champions the

ways in which the most illuminating kinds of multimedia creativity evince exemplary 'excess', remarking for example, how 'a masterpiece of video-installation' such as the Canadian artist Michael Snow's *La Région centrale* (1969) is clearly comparable to 'the work of Beckett or Kafka' (1998a), and acknowledging that 'There's a quality of truth in the work of the best of these artists that clearly corresponds to that of the great writers, the great painters – and the great architects' (1996a: 120).

Likewise, at its most flexible, *Cybermonde* emphasizes the swings and roundabouts quality of a world in which 'there is no gain without loss' (1996b: 49), and perhaps no loss without gain. Or perhaps not. Sensing that even implicit optimism edges too close to 'the superficially positive discourses of publicity, as opposed to the more rigorous discourse of critical theory' (1996a: 118), Virilio promptly nips hope in the bud. 'The world being a finite place', he reasons, 'a day will come when its losses will become intolerable and its gains will no longer appear.' And 'The 21st century will probably make this discovery: the discovery that our losses outweigh our gains' (1996a: 49).

Predictably, *Understanding Media* ends on a more upbeat note. Dismissing 'Panic about automation'; reasoning that 'Persons grouped around ... a candle' are 'less able to pursue independent ... tasks, than people supplied with electric light'; and anticipating more rather than less 'artistic autonomy' (1964: 311); McLuhan seems to conclude 'Candle bad, electricity good'. 'Electricity bad, candle quite good', Virilio virtually ripostes.

But need one reduce debate to the kind of 'either—or proposition' that William Burroughs deplores as 'one of the great errors of Western thought' (1965: 27)? As American multimedia performance artists such as Laurie Anderson and Meredith Monk remind us, neither candle-power nor cyber-power necessarily cause sensorial or existential deprivation. In Anderson's terms, 'fire's magic, and so is technology' (1991: 12), and when all is technologically said and done, electronic media are merely 'a way of amplifying or changing things'.

It's just a different way of doing it. No better or no worse. It is really just a tool. And a lot of people focus on it as if it were something important. It's the least important thing about what I do.... The latest thing that I did was extremely intimate, and at the same time had this huge amount of high-tech stuff. It was a solo thing. Seventeen people came on tour for this so-called solo thing. But I felt myself that it was by far the most intimate thing that I've ever done. (1991: 13)

Arguing in turn that both technological and pre-technological practices can counter mass-cultural 'numbing', Monk similarly concludes:

You use technology when you use it for what it can do. I certainly sing in front of a microphone and I use lights, although I also feel that I'd be very comfortable singing with one candle – and that's it! Basically I think that

what we need to do now, all of us – as human beings and as artists – is just to learn how to be incredibly flexible. I think that's why the hard times in a sense are kind of interesting. They're calling us to be very fluid and very flexible with what comes up. (1992)

Passionately diagnosing global techno-disaster rather than dispassionately weighing the merits of particular techno-practices, Virilio frequently sacrifices conceptual and empirical flexibility, and even when outlining the rationale for his 'logic of excess', tends to slip out of line into self-caricature as a lone resistance-fighter, struggling against a culture of collaborators.

If I make my case somewhat forcefully it's because few others bother to do this.... I am not at all opposed to progress, but I feel that it would be unforgivable... after the ecological and ethical catastrophes that we've been through ... to allow ourselves to be duped by the kind of utopian thought claiming that technology will restore greater happiness and humanity to the world. My generation cannot just sit back and let that sort of thing happen.... New technologies and media are a kind of Occupation. And I'm working in the 'resistance' because there are too many enemy 'collaborators' championing the ways in which progress will allegedly save, emancipate and free mankind from all constraint, etc. (1996b: 77–8)

Elsewhere in *Cybermonde* Virilio distinguishes himself from the kind of 'thaumaturge' who 'acclaims the miraculous quality of every kind of technology', and defines himself as a 'dramaturge' who, while not opposed to progress, 'wishes to reveal its drama, and the losses that it entails' (1996b: 54). As the most startling descriptions in *Open Sky* indicate, Virilio's 'dramaturgian' skills frequently rival those of Cronenberg and Ballard. Tracing the probable decline of the individual 'super-equipped ablebodied person' (1997a: 11), for example, to the figure of the 'citizen-terminal', decked out to the eyeballs with interactive prostheses based on 'the pathological model of the "spastic"', Virilio envisages the 'catastrophic' prospect of:

... an individual who has lost the capacity for immediate intervention along with the natural motricity and who abandons himself, for want of anything better, to the capabilities of captors, sensors and other remote control scanners that turn him into a being controlled by the machine with which, they say, he talks. (1997a: 20)

Likewise, predicting that 'terminal' humanity will bifurcate into either the terrestrial 'sedentary type of the great metropolis' (1997a: 33), or the astronautic sedentary type, 'not so much on the moon as in the gravitational inertia of a fixed point, without spatial reference' (1997a: 121), Virilio conjures Dantesque images of permanently lost bodies and souls, washed up on and off the planet as it were, with all the 'exhaustion and helplessness'

of the drowned giant in J.G. Ballard's *The Terminal Beach* (1966: 47), and with all the pathos that he associates elsewhere with:

Tourists of desolation, like the Albanians who landed half-naked and luggageless on the hostile coasts of Mezzogiorno, the most poverty-stricken region of the European community, only to realize that they had been had and that the land of milk and honey shown on Western TV never existed. (1995: 97)

L'Inertie polaire introduces its genealogy of domestic, cybernetic and astronautic inertia by describing how the automated currents in Tokyo swimming pools hold swimmers 'on the spot' (1994: 39), just as currents of Internet information similarly immobilize cybernauts before their screens. In such circumstances, 'Polar inertia begins' (1994: 46). Real-time interactivity subsequently aggravates early 'clinical' symptoms of 'domestic electronic incarceration' (1994: 70) to levels of 'pathological fixity' (1994: 136) and to the 'technical equivalent of the coma' (1994: 133). And worse follows:

As we prioritize the 'real time' of interactivity, as opposed to the real space of everyday activity, are we going to see more and more inter-residential activity, analogous here on earth to those of astronauts orbiting on high? Regrettably this is all too likely, since the *generalized transmission* of facts and images finally places us in ... domestic inertia which will radically modify our relations with the world, our relations with the REAL environment, be these terrestrial or extra-terrestrial. (1994: 135–6, my translations)

Looping the apocalyptic loop, L'Inertie polaire's final pages bow out with the extraordinary conjecture that those defying terrestrial and conceptual gravity may well become petrified in outer space – 'the perfect equivalent of a star, or an asteroid' – having reached 'that point of inertia at which the weight of the human body becomes identical to that of a planet' (1994: 166). In turn, just as L'Inertie polaire's ecological subtext warns that the 'advanced extermination' (1994: 165) and 'the premature ageing of this world' (1994: 146) is rapidly approaching 'organic senility' (1994: 144), Open Sky predicts that the speed of telematic 'interactivity' will induce corporeal disintegration 'analogous to the disintegration of the elementary particles of matter caused by radioactivity' (1997a: 115).

Worse still, *Open Sky* advises, 'home automation' will sell us the televisual 'straitjacket' (1997a: 97) or lure 'Telesexual' initiates into states of 'precocious dementia' (1997a: 112); the 'transplantation revolution' will incarcerate us within the 'biotechnical ... straitjacket' (1997a: 53); retreat from 'mundane space-time' will deliver us to the 'cybernetic strait-jacket of the virtual-reality environment control programme' (1997a: 131); and missions beyond our 'native world' will maroon us in 'gravitationless space' (1997a: 131–2). Put very simply, 'Things aren't looking very good, Houston.'

The crew of Apollo 11 thus become 'the prophets of doom of

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humanity's unhappy future' (1997a: 139). Neil Armstrong was only belatedly 'aware of what he had done "up here"', and arguably 'did not really live it' (1997a: 139); Buzz Aldrin's disorienting experience of 'moving directly from total shadow into sunlight, without any transition' (1997a: 138), seems to have prompted 'two nervous breakdowns' and eventual confinement 'in a psychiatric ward' and Mike Collins's 'strange feeling of having been both present and absent at the same time, on the earth as on the moon', portends the collective 'loss of the hic and the nunc' that Virilio likens to 'precocious senility' (1997a: 139–40).

Perhaps *Open Sky* should have been titled *Closed Sky*. For while initially hinting that we may 'soon need to change our bearings' towards a 'secret perspective... on high' if 'we really want to reorient our daily lives' (1997a: 2–3), *Open Sky* rapidly reverses gear, and by the end of its introduction ominously equates vertical take-off with the worst possible kind of 'Philosophical let-down', warning that 'the speed of light' may well eradicate all 'idea of the real' (1997a: 6).

Indeed, envisaging a Beckettian future where 'Nothing happens, nobody comes, nobody goes' (1977: 41), *Open Sky* predicts an 'endless perpetuation of the present' in which 'contemporary man no longer arrives at, achieves, anything'. Anticipated, it seems, by 'Kafka's sense of inertia', and exemplified by 'our astronauts on their return from their extraterrestrial cruise' (1997a: 143), this crisis offers the Miltonian prospect of lost 'angelic attributes' as we more or less 'shed our "wings", in a fall from – a forfeiting of – grace into a corpse-like fixedness' (1997a: 68). In such circumstances, Virilio advises, we should lower our sights, follow old maxims such as 'if you stop running around the playground it will appear much bigger' (1997a: 57), and generally heed scriptural or folkloric wisdom.

'What doth it profit a man if he gain the whole world, but lose his only soul', his *anima*, that which moves him and allows him to be both animated and loving, allows him to draw towards himself not only the other, *otherness*, but the environment, *proximity*, by moving from place to place.

An Armenian proverb puts it well: 'If my heart is narrow, what is the good of the world being so wide?' (1997a: 64)

Reasoning that all attempts to explore space and extend experience with technology lead us away from the essential insights of the heart, and that attention to the illuminations of the heart must in turn prohibit technological and astronautical aspirations, Virilio's *Cybermonde* argues that 'We must stop speculating' about 'realms beyond the world, beyond Earth or beyond mankind'. So far as Virilio is concerned, 'There's nothing beyond mankind', because 'man is terminal, and represents the completion of God's miracles'. 'One cannot improve mankind' because 'The human species does not lend itself to eugenics' (1996b: 86).

As becomes evident, Virilio's objections to technological research arise not so much from urban, socio-political or ecological considerations,

as from ethical, theological and historical convictions prompting his fear that 'the future transplantation revolution and the ingurgitation of micromachines, the technological fuelling of the living body' (1997a: 53) will almost inevitably injure the general 'miracle' of humanity.

While sharing Virilio's general sense that 'techno-scientific power, like political power, or like religious power' can be 'at once both a blessing and a calamity' (1998a), Stelarc reverses Virilio's priorities, warning that dogmatic use of notions of the 'soul' may well obstruct interactive technological research seeking 'multiple possibilities rather than coercive solutions' beyond the 'old metaphysical distinctions between the soul and the body' (1998). Once again, then, we confront examples of deadlocked 'Either-or thinking' (Burroughs, 1965: 27), and of what Beckett, contemplating the vicissitudes in Proust's writing, calls the 'great mind in the throes' (1934: 975), as both Virilio and Stelarc defend or condemn what we might think of as 'grand' values which – as both 'a blessing and a calamity' – seem neither wholly defendable nor wholly condemnable.

Intuitive visionaries, instinctively reaffirming their species' finest qualities, Virilio and Stelarc unanimously reject the petty orthodoxies of institutional and industrial logic, and the totalitarian claims that Lyotard defines as 'the legitimating power of the grand narratives of speculation and emancipation' (1994: 38). Just as Virilio dismisses the way in which the 'publicity mentality' (1996a: 123) indiscriminately celebrates 'the miraculous quality of every kind of technology' (1996b: 54), Stelarc condemns the complacency with which 'corporate' approaches to technology 'simply affirm the status quo of everything' (1998), and generally argues that the technologically enhanced body should function 'more as an artist than as a bureaucrat' (1995: 49).

Likewise, just as Virilio remarks: 'My father was a Marxist and I was more of an anarchist, but we believed that the grand narratives offered salvation. But all of that is finished!' (1998a), Stelarc still more insistently disputes the claims of ideological master narratives.

I don't want to participate in political ploys. Political rhetoric is often simplistic, dogmatic and vindictive. What's interesting is alternative aesthetics and speculative ideas. I guess that's why gender issues irritate me because they represent social and political agendas that I've intentionally never been a part of. (1994: 381)

Clearly then, despite their considerable suspicion of repressive master narratives, neither Virilio nor Stelarc ever wholly abandon 'master' values or master 'questions'. Acknowledging 'communism's death', and reflecting that 'there's no point in pretending that its corpse is still alive', Virilio, for example, concludes: 'Let's work instead at something else, in terms of the relationship between the individual, which is always at the heart of history' (1998a). Likewise, in the very process of distancing himself from gender debates, Stelarc identifies further 'fundamental questions' (1994: 381):

I see things from a human stand-point, not so much from a gendered stand-point. That might sound contradictory and certainly if this person is a male, what this person says is going to be highly charged by the culture of patriarchal society. That's a fair comment. But the point in time when gender issues become an issue is the very moment when more fundamental questions should be asked. Can the issue of what it means to be human be situated in cyber systems rather than in the biological status quo? (1994: 392)

At their most interesting, both Virilio and Stelarc consciously 'diverge' from the status quo, provocatively pursue logics of excess and metaphorically invoke their 'visions' rather than statistically imposing 'closure'. Yet for all their shared virtues and mutual respect, they seem fated to remain closed to one another's 'master values', propelled beyond reconciliation by their respective convictions, intuitions and beliefs. For his part, Stelarc regretfully concludes:

Virilio's one of my favourite writers, but I think that his critique in this instance is one that is in a sense obsessed with an ethical and a very human-based concern – he sees technology as a kind of threat to the body.... Technology outside the body might be OK, but he seems to see technology as more of a threat when it invades the body's tissues – as if it betrays a body operating with a capital 'I' – a body with a possessed mind, a body that is a possessed individual. This is just a query, but is it possible to consider a body without an 'I', without a self, in the traditional metaphysical way? ... these are central questions, I think. (1998)

As Virilio emphasizes in *Cybermonde*, he is extremely unwilling to countenance such questions, and as 'a limited man forced to address a limitless situation', he finds can 'only say "no" (1996b: 51); a strategy that he endorses in terms of his sense that 'The essential characteristic of man is his capacity for resistance' (1996b: 25). But living in the 'terminal' 1990s, how can one best say 'no', and to what should one say 'no'?

At his most censorious, Virilio considers the possibility of extending the 'speed limit' imposed upon the arms race (1996c: 184) to 'legal sanctions' generally restraining the ways in which acceleration exhausts 'temporal distances' (1997a: 25). But as *Cybermonde* concedes, 'Withdrawing oneself from the problem is no solution', given that 'It's no more possible to disinvent genetic engineering or the atomic bomb than it is possible to disinvent nuclear energy.' Accordingly, 'Our work consists not so much in disinventing, as in overtaking. One can only fight one invention with another invention. One can only fight one idea with another idea, or with another concept' (1996b: 35).

At this point Virilio's and Stelarc's arguments once again converge. Like Virilio, Stelarc concludes that artists 'can't suppress surveillance and military technologies', and like Stelarc, Virilio insists that the 'real' artist or 'real' critic' has to 'try to generate new uses, new aesthetics ... alternative possibilities for those technologies' (Stelarc, 1994: 391).

In Virilio's terms, 'A real artist never sleeps in front of new technologies but deforms them and transforms them', and 'If one is a critic one doesn't ever accept things at face value and one doesn't ever sleep in front of new technologies' (1998a). For Stelarc, new technologies are most significant as catalysts empowering the artist to work 'beyond spaces of certainty', 'between biology and silicon-chip circuitry', in projects exploring 'those thresholds, those zones of slippage, those areas of interface, with anxiety, with hope and desire, but without romantic nostalgia' (1995: 49).

But once again, Virilio parts company from Stelarc in terms of his sense that the key questions posed by late 20th-century technoculture are not so much whether humanity can maintain hopeful exploration of new 'zones of slippage', as the question of whether humanity can simply survive its battle for self-preservation 'against technoscience, against cloning, robotics and so on' (1998a). Doubting whether humanity can long remain 'free in the face of science and technology', and yet at the same time insisting that things can only go forwards, Virilio cautiously concludes:

Personally, I think that the next political struggle ... will be the struggle against technoscience, against the reign of technoscience, against cloning, robotics and so on. But this ... doesn't imply a return to a previous situation. It means the attempt to fight against technology itself – not in order to destroy it, but in order to transfigure it.... I've never been an 'ecologist' as it were, proposing a return to a lost paradise. Not at all. (1998a)

As *Cybermonde* indicates, Virilio models his tactics for resisting the 21st-century 'tyranny of technoscience' (1996b: 34) upon the 'extraordinary quality of divergence . . . in the work of the 19th-century painters' (1996b: 25).

Quite simply, we have to invent divergence. And this time it's the turn of science to a kind of impressionism or cubism ... commensurate with our culture's problems.... It's this kind of invention which allows us to reattain equilibrium and a common culture, not to speak of the possibility of democracy. The work of the poets, painters and film-makers has always diverged in this way. We now need to know whether or not contemporary scientists are capable of doing the same. (1996b: 37)

Predictably, Virilio answers this question negatively. The very concept of there being a kind of technocultural resistance to technoculture seems to strike Virilio as both an alarming and an unacceptable paradox, and however much a technological artist such as Stelarc may emphasize that their work explores 'the divergent rather than the convergent' (1998), such 'divergence' from Virilio's metaphysical 'master' values seems doomed to disapproval. Thus, whereas Roland Barthes's essay 'The Third Meaning' distinguishes the way in which innovative multimediated practices may well

be 'born technically' or 'aesthetically' long before they are finally 'born theoretically' (1977 [1970]: 67), Virilio's implacable conceptual 'closure' before what he thinks of as the eugenicist impulse within technological performance renders it more or less axiomatically 'still-born'. Live arts such as dance and theatre win Virilio's loyalty, and partially architectural technological practices such as video-installation win his interest, but thereafter Virilio, like Beckett's Estragon in Waiting for Godot, seems persuaded that there is 'Nothing to be done' (1977 [1956]: 9).

I can't see many signs of this divergence or struggle in contemporary art save in dance - which I adore! and theatre - which I adore! - Heiner Müller, for example! Apart from dance, from theatre and one or two video-installation artists, I can't see any real traces of critical divergence or any attempt to do something else, in some other way.... Like Baudrillard I'm conscious of a crisis in contemporary art and even of something like the end of contemporarv art. But not an end in the sense of there no longer being any art, but in the sense of witnessing the end of a certain kind of art, or what Beckett would call the 'endgame' of art – in every sense of the word. (1998a)

Finally then, despite its acknowledgment that 'Technological culture is just as necessary as artistic culture', Cybermonde argues that technological art is most conspicuous in terms of its absence, that 'Only critical responses can help technological culture to develop', and that 'Unless we see an increasing number of art critics over the next few years, we will lose all freedom before new multimedia technologies' (1996b: 33-4).

At this point, Virilio turns to 'the wonderful biblical image of Jacob wrestling with the angel' (1998a), in order to introduce the salutary potential of the kind of rigorously resistant critical discourse towards which he feels an almost existential or religious obligation.

Jacob met his God in the person of an angel and he wrestled with this angel for a whole night and at the end of this night he said to the angel, 'Bless me, because I have fought all night'. What does this symbolize? It means that Jacob did not want to sleep before God. He wanted to respect him as a man. He wanted to remain a man before God ... he fought, rather than sleeping as though he were before an idol. Technology places us in the same situation. We have to fight against it rather than sleeping before it. And me, I don't sleep at all before technology! I adore it! I adore technology! (1998a)

Virilio's 'adoration' for technology is obviously strictly rhetorical. As Cybermonde indicates, he envisages the late 20th century as a battlefield where those faithful to 'the god of transcendence' must confront converts to the 'machine god', and where nobody can 'behave like unbelievers'.

Henceforth, we all have to choose our faith. Either one believes in technoscience ... or one believes in the god of transcendence. It's an illusion to claim to be an atheist. In reality, all atheists today are followers of the machine-god. (1996b: 81)

Clearly then, Virilio's 'closure' before technological culture derives from two principal complaints; his sense that virtual culture negates transcendent values, and his sense that it eradicates the more mundane values of 'near and far' that make up 'the necessary conditions for sensory experience' (1997a: 45). In turn, as his discussions of the technological avant-garde in *The Art of the Motor* indicate, Virilio's systematic rejection of technoculture pivots upon his fear that the futurist impulse in 20th-century creativity is inseparable from eugenicist and fascist ideologies.

As we have already remarked, Virilio's *Voyage d'hiver* unequivocally argues that 'all the misery of the world arises from man's feeling that he can be improved by machines invented to take his place', and summarily dismisses any art form tainted by 'the fatal illusion of eugenics' (1997b: 7–8). Observing in turn that he still 'has a score to settle with Italian Futurism', Virilio still more explicitly explains:

Like them my approach is futurist, but whereas their work is positive, mine is negative. And I completely reject the fascist impulse that I perceive in their work. For me it's quite clear. Those who are optimistic about technology are very closely allied to fascism. He who is critical of technology is not fascist. (1998a)

Ironically then, Virilio's sympathy for ways in which the painterly avant-gardes (such as Impressionism, Pointillism and Cubism) 'resist' realist photographic culture seems counterbalanced by his antipathy towards the ways in which subsequent partially technological avant-gardes (such as Futurism and Surrealism) offer still more radical resistance to 19th-century cultural conventions. Consistently discrediting the technological aspirations of the modern and postmodern avant-gardes according to a 'closed' logic determining: 'Pre-technological art, good. Technological art, bad', *The Art of the Motor* typecasts the technological avant-garde into obscurity, clearing the way for *Open Sky*'s worst-possible-scenario surveys of a doomed techno-planet unredeemed by any trace of aesthetic invention.

Vigorously refuting rather than rigorously researching 20th-century technoculture, *The Art of the Motor* reflects the same lack of aesthetic faith in the integrity of the modernist avant-garde that one finds in Jürgen Habermas's still more conservative claim that 'the failure of the surrealist rebellion' (1981: 6) affronts 'the standards of . . . communicative rationality' (1981: 8). In Habermas's terms, Surrealism fails because it addresses only 'a single cultural sphere – art', and therefore cannot influence 'all spheres – cognitive, moral-practical and expressive' (1981: 11), and because its 'nonsense experiments' merely induce 'destructured form' rather than any 'emancipatory effect' (1981: 10).

In turn, Virilio dismisses Surrealist art because he too finds it without

emancipatory value, and because its technological aspirations seem to anticipate contemporary calamity. Thus, while *Voyage d'hiver* hails Marcel Duchamp as 'a real philosopher', acknowledging that 'philosophy can paint and can film' and 'doesn't have to end up in books' (1997b: 80), it is as an artist working with constructions such as his doubled *Door: 11 rue Larery, Paris* (1927) – rather than as a kinetic and filmic artist – that he wins Virilio's approval.

More specifically, *The Art of the Motor* condemns Surrealism for the same reason that it condemns mainstream digital art; because its mediocrity affronts what one might think of as 'communicative poetry' and 'communicative philosophy', exhausting what Virilio calls 'the fragile sphere of our dreams' (1995: 70–1). In Virilio's terms,

The works of the Surrealists ... showed us the poverty of the trivial dream, which is so curiously lacking in variety and imagination that the representation of our desires becomes a load of drivel, with endless repetition of a few limited themes. The same thing can be said of digital imagery, which merely imitates the special effects and tricks of the old 3D cinema or animated cartoon. (1995: 71)

Subsequently endorsing Artaud's charge that 'Surrealism was an elusive virtual hope and probably as much of a con as anything else' (1995: 146), The Art of the Motor dismisses the 'virtual hope' of virtual reality as a chimera concealing imminent collective incarceration. In such 'an artificial world peopled by imperative signals, the man of tomorrow will not for long be able to escape an environmental control', and will 'no longer be at liberty to construct some kind of mental imagery' (1995: 146).

Such prospects, *The Art of the Motor* concludes, make a mockery of the Surrealist boast that 'science will kill travel by bringing the country we want to visit to us' (1995: 151). Indeed, so far as Virilio is concerned, mass-mediated humanity is already a 'Victim of the set' (1995: 152), hoodwinked by high-tech counterparts to 'the famous mobile sets Prince Potemkin had ranged along the horizon, the entire length of his sovereign's itinerary, to give her a false impression of how civilized and prosperous her immense empire was' (1995: 78–9).

In much the same way, Virilio suggests that the exultant Futurist vision of 'Man multiplied by the machine' (1973: 97) introduced in Marinetti's 'Destruction of Syntax – Imagination – without – Strings – Words – in – Freedom' Manifesto (1973 [1913]: 97), and the equally assured Surrealist ideal of 'Pure psychic automatism' in 'the absence of all control exerted by reason' outlined in André Breton's 'First Surrealist Manifesto' (1965 [1924]: 72), decline into the automated and disoriented thought of those 'shattered' – or, we might say, 'shuttered' – by present technologies.

So far as *The Art of the Motor* is concerned, if 'the cutting loose initiated by Futurism' has any recognizable consequences, these culminate in the wholly negative spectacle of the 'new man-machine'; a being

'Controlled to an unimaginable degree' (rather than enjoying 'Imagination — without — Strings' or 'Pure psychic automatism'), and traumatized by forces 'shattering man's unity of perception and ... producing, this time AUTOMATICALLY, the persistence of a disturbance in self-perception that will have lasting effects on man's rapport with the real' (1995: 146–7).

Finally, anticipating *Open Sky*'s claim that 'terminal' culture eradicates one's 'only soul', one's 'anima' and the 'very being of movement' (1997a: 25), *The Art of the Motor* concludes with the suggestion that 'cybernetic ideography' merely brings us 'belated conformation of Antonin Artaud's desperate observation about the immediate postwar period: "What defines the obscene life we are living is that all our perceptions, all our impressions have been distilled for us" (1995: 147).

Ironically, the more one reads Virilio's accounts of postmodern escalations of the imperfection implicit within the modernist technological avant-garde, the more obvious it becomes that his own arguments similarly leave 'all impressions' of technoculture unfavourably 'distilled for us'. Like the revisionist historians that *Voyage d'hiver* condemns as 'Negationists, perversely camouflaging historical reality' (1997b: 33), Virilio's *The Art of the Motor* offers a surprisingly 'camouflaged' account of the Futurist and Surrealist traditions.

Briefly, while Virilio defines his general approach to contemporary culture as the attempt to resuscitate 'ill-perceived or voluntarily neglected incidents and details' from the public pool of 'great events' (1996c: 11), his choice of 'neglected' incident and detail is telling selective. Or put another way, if 'the real problem of the press and television' derives from 'what they manage to obliterate, to hide' rather than from 'what they are able to show' (1995: 3), the 'real problem' in Virilio's writings similarly derives from their tendency to hide – and virtually obliterate – all traces of positive technological practices.

From Virilo's viewpoint this kind of 'distillation' of the facts is perhaps a necessary evil. Resisting deceptive reassurance, *Voyage d'hiver* insists that 'those who say..."things will finally work themselves out", are not only liars but ... negationists ... counteracting the difficult work of social workers, sociologists, doctors and all men of good will' (1997b: 88). But in much the same way, Virilio's worst scenarios similarly hinder recognition of those creative 'men of good will' whose techno-compositions still await theoretical explanation. As case-histories suggest, the positive lineage between the modernist and postmodern avant-gardes frequently receives more lucid recognition from the veterans of the modernist avant-garde than from the luminaries of postmodern critical theory.

Writing in his 'Open Letter to André Breton' of 2 June 1971, for example, the veteran Surrealist Louis Aragon observes how the American director Robert Wilson's Paris production of *Deafman Glance* (1971) projects the Surrealist project into a realm which he defines as being 'not surrealism at all', but 'what we others, who fathered surrealism, what we dreamed it might become after us, beyond us' (1987). While sympathizing

with those 'who think that science may come to take the place of art, who fear the "robotization" of humanity', Aragon insists that when technology is used with the finesse of a multimedia artist like Wilson, 'A play like DEAFMAN GLANCE is an extraordinary freedom machine', generating 'Freedom, radiant freedom of the soul and the body' (1987).

Likewise, writing in a letter of 1 August 1979, the veteran Dadaist Marcel Janco similarly acknowledges the ways in which the tape-recorded poésie sonore of postmodern poets such as Henri Chopin project Dada's 'new expression of life' into the still more forceful realms of compositions incorporating 'the fantastic mechanical and technological progress of today ... radio waves, stereo, the tape-recorder' (1982: 75), and in turn, recounting the reaction of Virilio's most respected modernist master to his first public presentation of the audio-poème 'Espace et Gestes' at the Galerie Mesure in Paris in 1961, Chopin tellingly recounts:

An artist who had been listening to the tape gave me his address and said, 'Come to my studio and I'll give you a painting, because you've achieved with sound something which we could never have done'. So I went to visit him. It was Marcel Duchamp! (1995: 23)

By contrast, *The Art of the Motor*'s accounts of the ways in which 'the Italian Futurists' dream actually come true' (1995: 103), merely offer further parables of escalating degradation. If 'Marinetti trumpeted ..."Let's make way for the imminent and inevitable identification of man with the motor" (1995: 129), postmodern technoculture – it seems – ends up 'treating the living being like a motor, a machine that needs to be constantly revved up' (1995: 123), as humanity lurches towards what Virilio describes as 'a new type of fundamentalism ... one no longer associated with trust in God of traditional beliefs, but with ... the "technocult", of a perverted science' (1995: 120).

Left to its own devices, *The Art of the Motor* concludes, such a 'perverted science' will transform humanity into the kind of technological untouchable that Virilio associates with the 'profane body', or into the kind of technological unsavable that he thinks of as the 'body-without-a-soul' (1995: 113). But as Viola suggests, there is no reason to suppose that technoculture is necessarily any more perverse than its precursors. 'The video camera is well suited to looking closely at things, elevating the commonplace to higher levels of awareness' (1995: 78), and 'One of the most interesting aspects of recording media' is the way in which they can offer 'surrogate sensory perceptual systems, in some ways similar, in some ways different, from our own, but nonetheless with a specific set of characteristics that we can hold up and compare against ourselves' (1995: 65).

Far from identifying the advantages of such surrogate awareness and insight, *The Art of the Motor* argues that the body of 'the wholly hyperactivated man' (1995: 120) may well quite literally lose all its senses when exposed to the kind of informational overload 'whose advent Pascal evoked,

when he wrote, "Our senses cannot perceive extremes ... Extreme qualities are our enemies. We no longer feel anything; we suffer" (1995: 132). Yet again Virilio projects his writings into Beckett country, where one can 'only suffer' events resisting all attempts 'to saddle them with meaning' (1963: 75–6).

But for Virilio, such extreme prospects seem far from fictional. Once we 'not only act at a distance, but even teleact at a distance – see, hear, speak, touch, and even smell at a distance', he observes, we may well witness 'the unheard-of possibility . . . of a sudden splitting of the subject's personality', as 'the classic distinction between "inside" and "outside" 'flies 'out the window' (1995: 106–7). But since when did any self-respecting 20th-century writer or artist lose sleep over the co-presence of 'inside' and 'outside' experience? Reconsidering his claim that he wishes 'to see more of what's out there, to look outside', whereas 'Beckett wants to go inward' (1965: 23), Burroughs, for example, effortlessly concludes, 'Well of course . . . there's no dichotomy there. At some point inward becomes outward, and outward becomes inward. It's just a part of the spectrum' (1987: 33).

Likewise, as Virilio himself remarks in *The Aesthetics of Disappear*ance Proustian evocations of the mind's 'entry into another logic' (1991 [1980]: 35) – such as the following sentence from *Swann's Way* – typify the assurance with which the modernist text evokes dissolving distinctions between such 'classic' distinctions as here and now, solid and liquid, inside and outside, and 'container' and 'contained'.

I enjoyed watching the glass jars which the village boys used to lower into the Vivonne to catch minnows, and which, filled by the stream, in which they in their turn were enclosed, at once 'containers' whose transparent sides were like solidified water and 'contents' plunged into a still larger container of liquid, flowing crystal, conjured up an image of coolness more delicious and more provoking than they would have done standing upon a table laid for dinner, by showing it as perpetually in flight between the impalpable water in which my hands could not grasp it and the insoluble glass in which my palate could not enjoy it. (1989 [1917]: 183–4)

In turn, *The Aesthetic of Disappearance* notes how Magritte similarly evokes the co-presence of 'familiar things' and 'something else of an unfamiliar nature' (1991: 36), and describes the ways in which Bernadette de Soubirous's mystical revelations reflect 'the passage from the familiar to the unfamiliar', slipping out of focus like 'those surprising moments that precede epileptic absence', before 'perceiving the kind of infra-ordinary reality' for which 'you'd give a whole lifetime' (1991: 37–8). Briefly, while associating Proust's, Magritte's and de Soubirous's visions of 'infra-ordinary reality' with positive kinds of temporal and spatial travel, Virilio suggests that the technological blurring of 'inside' and 'outside' reality only leads to a kind of permanent 'epileptic absence'.

Anticipating such negative responses to his long-distance cybernetic

collaborations; admitting that these could be unfavourably caricatured as 'electronic voodoo where you're prompting the body to move'; and generally discounting the hyperbole of 'infra-ordinary' categorization; Stelarc remarks that his work still frequently awaits more pragmatic discussion according to its artistic and conceptual merits, 'as a kind of true interactive situation where I can borrow a part of your body and make it perform a task in another space' (1995: 48).

These performances aren't about shamanistic displays of human prowess. They're not pseudo-medical scientific research. They're not yogic feats of fine-tuning to attain higher spiritual states. They're none of these things. They're simply works of art, exploring intuitively new realms of aesthetics and images. (1995: 49)

In turn, patiently reassessing – rather than precipitately dismissing – 'the unheard-of possibility' of 'splitting ... the subject's personality' (Virilio, 1995: 106), and the still more unheard-of condition of the 'split body', Stelarc speculates that variants of both conditions may well offer significant advantages to those still championing the hypothesis that the technological artist may well be 'capable of reconstructing a reality through the new images of tomorrow' (Virilio, 1988: 61).

I'm intrigued by the way in which our psycho-social and historical and cultural development has always tended to perceive the notion of the split personality as pathological. We query whether it's possible to function with multiple personalities. But in our cyber-real of existence, it'll be an advantage to have a split personality – where one body might function in multiple and unconnected ways. You see limbs move as alien arms remotely actuated by agents elsewhere. You have a split body – your right side collaborating with local awareness with the alien left side of your body.... In our Platonic, Christian, Cartesian and Freudian pasts this might have been considered pathological. But in this terrain of cyber-complexity that we now inhabit the inadequacy and the obsolescence of the ego-agent driven biological body cannot be more apparent. A transition from the psycho-body to cybersystem becomes necessary to function effectively and intuitively in remote spaces, speeded-up situations and alien information beyond sensory experience. (1998)

As Stelarc observes, his research follows the assumption that 'To be human is to be augmented, extended and enhanced by technology', actively and critically attempting to explore the potential of unexpected kinds of performative interaction in situations where 'you have the choice' to define the performance situation, and where 'because you are aware of what's going on, this loop of consciousness creates the possibility of response and interaction' (1998).

In other words, his performances in works such as such as *Ping Body* (1996) are neither those of a 'willing victim' (Virilio, 1995: 114) wholly

sacrificed to the 'CYBERNETIC programming of vital rhythms' (1995: 128), nor those of a 'total automaton', but the reactions of a willing collaborator, intentionally physically and mentally exploring what he thinks of as 'alternate and possibly augmented experiences' in a kind of partially voluntary and partially involuntary dance with – and within – 'the structural, spatial and temporal parameters of the internet'. Here, Stelarc explains, 'you're using the structural parameters of the net to activate the body, but then, in turn, to upload it' in a 'very intriguing' kind of 'looping, uploading/downloading' operation, as 'movements initiated by the internet activity were then in turn uploaded to a website on the net' (1998).

Here too, perhaps, we witness something very like a contemporary counterpart to Virilio's favourite image of critical resistance – the spectacle of Jacob wrestling with the angel, 'measuring himself against some incommensurable being, without either one letting go', 'forced to acknowledge the limits of his own body' (1995: 84) and as Stelarc puts it, 'querying the limits' of 'knowledge and experience' (1994: 381).

Like Virilio, Stelarc is a global traveller, an irresistible agent provocateur, and as 'real' a philosopher as Duchamp, if one accepts Voyage d'hiver's general dictum that philosophy 'doesn't have to end up in books', but can also 'paint' and 'film' (1997b: 80) – and one might add, 'explore cybernetic interactive performance'. Revising this dictum, we can also surely posit that 'art can philosophize and write' and 'doesn't have to end up in galleries', and can surely conclude – hopefully for the better rather than for the worse – that Virilio himself is quite as 'real' an artist as Duchamp or Stelarc.

Unrepentantly offering the warnings of a 'child of total war and post-war totalitarianism' (1997b: 7), and in many respects sharing Heiner Müller's sense of being a writer more interested in 'conflict' than in 'answers and solutions' (1990: 34), Virilio commands respect as one of the most compelling cultural theorists of the last decades. Stelarc is surely not alone when he remarks that 'Virilio's one my favourite writers.'

Note

1. The translations from Virilio's L'Inertie polaire (1994), Cybermonde (1996b), Un Paysage d'événements (1996c) and Voyage d'hiver (1997b) are my own.

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