It is time to find an ecology of the media.
—Paul Virilio, *Desert Screen: War at the Speed of Light*

Telecommunicative technologies are rapidly changing how we see and perceive the present and the past. For decades Paul Virilio has been at the forefront of debates on the impact of this technology on real-time consciousness and space-time consciousness and more generally on the pervasive nature of this technology across many aspects of our daily lives. In their coedited collection *Virilio and Visual Culture* (2013), John Armitage and Ryan Bishop testify to Virilio’s rich life of intellectual engagement, from the 1950s and his writings on architecture through to the 1980s, and his more celebrated contributions to debates on the sociocultural effects of cinematics, vision technologies, and surveillance and the role of accelerated cultural developments in advanced societies. Technological innovation has long been seen as a signifier of national pride and supremacy. Consider the role played by the panzer tank in the German Nazi Party’s strategy of territorial expansionism (lebensraum); the race between the United States and the Soviet Union to put the first person in space and on the moon; and lest we forget, the development of nuclear weapons that paradoxically established years of cold war between the Soviet Union and the West, the end of which Virilio (2002: 33) pinpoints as the beginning of the new electromagnetic warfare we see played out on screens today: “In becoming strategic, it is the weapons themselves that
deterred any interruption in the movement of the arms race.” Technology in one way or another has been synonymous with national self-aggrandizement, military might and posture, and international prestige.

In the context of recent European history, France is an interesting vantage point from which to view the development of technological progress as much for the groundbreaking nature of some of its “inventions” (the Concorde, the Minitel, Ariane) as for the suspicion that has stalked much technological transformation. This suspicion, arguably, has its roots in the period of les trente glorieuses (the glorious thirty years). Les trente glorieuses (1945–75) were a time of radical change in postwar France. Urbanization, internationalization, consumerism, and visual technologies ushered in an era of excitement and wonder, enhancing France’s preeminence as a modernizer and innovator. However, there was another side to this age of relative prosperity. A traditional, rural, peasant, and Catholic way of life was disappearing literally at the speed of light: “The speed with which French society was transformed after the war from a rural, empire-oriented, Catholic country into a fully decolonized and urban one meant that the things modernization needed—educated middle-managers, for instance, or affordable automobiles and other ‘mature’ consumer durables . . . or a work force of ex-colonial laborers—burst onto a society that still cherished pre-war outlooks with all the force, excitement, disruption, and horror of the genuinely new” (Ross 1995: 3). There was a pronounced pulse of anxiety running through the literature, cinema, sociology, and cultural commentary of this period. Georges Perec’s Les choses (1965) laid bare the effects of commodification and dehumanization at the heart of consumer society. Jacques Tati’s cinema highlighted the alienation of the individual in the increasingly mechanized urban environment. Edgar Morin’s La commune en France (1967), detailing ethnographic studies of village life in Brittany, revealed the upheaval of everyday life as technology ripped through the landscape. And Roland Barthes’s Mythologies (1959) unlocked the mythologies of “iconicism,” most notably in that emblem of creative technology, the Citroën DS.

Notwithstanding the global reach of Virilio’s oeuvre today, he is very much part of this tradition of suspicion (“l’ère du soupçon”—era of suspicion—coined by the novelist Nathalie Sarraute [1956]) that emerged in France during les trente glorieuses and that challenged the unremitting advance of technology. Steve Redhead (2005: 39) confirms that Virilio’s theories on the function of architecture, developed with the architect Claude Parent in the 1950s and 1960s—with an emphasis on the production of disequilibrium and bringing the body into direct relationship with the environment—were a response to “the stultifying consumer society of the 1960s.” Virilio’s association with Parent and their formation of the Architecture Principe group in 1963 demonstrated a resistance (political and aesthetic in the case of Virilio) to the “modernist” architectural protocols of the past, particularly the pervasive use of the vertical/horizontal axis exemplified in the widespread construction of the habitation à loyer modéré (HLM) in the 1960s in the suburbs of large French cities. Parent and Virilio’s specific theory of the function of the oblique questioned the topographical verticalization of space typified by the HLM. Through the oblique, they would seek to redefine the personal, the mobile, and the idiosyncratic (an architecture of motion) as a form of resistance.
to the hegemony of the vertical and the corporate.1 This architectural contrast is highlighted memorably by the Arpel family’s incongruous beton brut (exposed concrete) “pavillon” and the organic materiality (obliqueness) of M. Hulot’s “chambre de bonne” in Tati’s classic Mon oncle (1958). The contrast in architectural styles presages similar anxieties decades later in Virilio’s work The Futurism of the Instant: Stop-Eject (2010), in which he challenges the orthogonality of the “outre-ville” (ultracity) epitomized in the skyscraper and modern city dwelling (see Enda McCaffrey’s essay). The intellectual curiosity of Virilio, a future art critic of technology, can be traced back to this era of suspicion and his attention to the radicalism of spatiodynamics as an early template for the dromospheric condition, including the theory of the function of the oblique, particularly in the way it redirected architectural focus to the body and to “the awareness of gravity” as a constant of change (Redhead 2005: 44). This special section of Cultural Politics takes its inspiration in part from this tradition and more directly from the later writings, notably Desert Screen: War at the Speed of Light (2002), in which Virilio forecasts an apocalyptic, global, and spatiotemporal collapse as a consequence of media technology overriding diplomacy, consensus, and negotiation in matters of war (specifically the first Gulf War). Characterizing war waged virtually rather than on the ground, Desert Screen highlights the growing significance of speed in warfare and also the preeminence of the image in which logistics and ideologies are subordinated to and reframed by the spectacle represented and repeated on the television screen.

Michael Degener’s 2002 postscript to the first English translation of Virilio’s Desert Screen: War at the Speed of Light attests to the continuing relevance of this work today. In the postscript Degener (2002: xv) writes: “One year after James de Derian’s preface, and with this book in final proofs, Virilio’s 1991 prognostications resurface with a renewed relevance. Once again it would seem Iraq is coming into the line of fire.” Over a decade later, and with this current special section nearing final proofs, Virilio’s prognostications ring true again but this time with even greater resonance. Coalition forces from the West and Arab countries have responded to a request from the Iraqi government to intervene militarily to “degrade and destroy” the emerging terrorist threat posed by the so-called Islamic State of Iraq and the Levant (ISIL). After previous military campaigns in Afghanistan (2001–present) and the Iraq War in 2003, what marks this current military intervention as different and unique is that it appears to be happening without the need for combat ground troops—at least not yet.2 Whether this will remain the case over the coming months is open to conjecture, but the strategic military option to engage an enemy with airpower alone (including the new art of drone warfare and notwithstanding future predictions of “killer robots”)3 fulfills a 1991 prophecy by Virilio (2002: 27) that is at the center of Desert Screen’s thesis: “It is essential that from now on we should consider that the real environment of all important military action is no longer so much the geographic environment, be it desert or other terrain, but rather that of the electromagnetic domain, this dromosphere of waves that are propagated at the speed of elementary particles and permit an instant perception beyond the visible domain.” Virilio’s idea of the “squared horizon” was developed against the backdrop of military intervention in Iraq in 1991 (during the first Gulf War). In
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*Desert Screen* he analyzes the nature of this military engagement—specifically the historical shift that took shape from the real space of the battlefield and conventional warfare (what Virilio calls “episodic war,” in which strategic planning played a pivotal role) to the *real time* of instantaneous electromagnetic war (logistical “pure war”). Electromagnetic warfare, driven by a computerized pooling of data involving satellite, radar (stealth), and teleaction/logistical technologies, introduced the supremacy of “absolute speed” of weapons and communication systems over the movement of “relative speed” of mechanized forces: “The perspective from the battlefield is no longer so much that of the point of departure as the simultaneous departure of all points, the pixels of the image of targets to be acquired in order to destroy the enemy” (47). At the center of this historical shift in the rules of engagement is technology, in particular the widespread use of the screen (computer, TV, console, monitor, etc.) as the new “arm” of military might and the democratization of public opinion. The “squared horizon” has come to symbolize a new means of conducting war on a series of “fronts” where the traditional lines of engagement are no longer applicable. Technology and the screen have become the place where war is “played out” as a lethal exercise in military disengagement, where war can be “fought” as a noncontact sport with devastating impact. However, while Virilio claims that the destructive effects of pure war are rarely seen either on-screen or on the ground, it is the wider pervasive and invasive impact of the “squared horizon” that concerns us in this section. The aim therefore is to draw out the social, cultural, political, and philosophical implications of the “squared horizon” and to follow up, where possible and relevant, the lines of resistance to the logistics of perception filtered through this image. For Virilio, resistance is an act of “political philosophy” (44), and the risks of failure are “serious” if not “fatal” (24, 27). Resistance therefore resides in taking back control of the mediation of perception, in particular the reductive effects of real time, the neutralization of distance and deferred time as a measure of reflective consciousness, and the confusion generated by the fusion of object and image in the screen wars between representation and presentation.

The “squared horizon” captures the end of war as strategy, propaganda, and maneuver in time and space (Virilio calls this “deferred time”) and its replacement by a high-definition transmission of virtual war that is configured differently. The different configuration is produced primarily by the reduction of time and space to “nothing” and the “transplantation of the weaponry of the means of perception and communication to the interior” (130)—in other words, to the image on the screen. For Virilio, this transplantation has the effect of distorting the relation between inside and outside, “bringing about a discrete fusion between exterior space, where conflict unfolds, and the interior space of the machine” (130), itself represented in the image on a screen. Real space, be it desert or sea, cedes supremacy to the real time of interactivity. With the square screen as both the limit and the horizon of perception, its interactivity has become integral to the logistics of military advantage, sight, stealth, and getting the first view of the enemy—all of which play to the key principle of “long-distance non-detection” (110) critical to “post-modern war.” The screen takes on the force of a “weapon” in its own right, including as a force of intervention and an arm of communication (113). Virilio claims...
that the screen’s long-distance control of the geopolitical is ensured by the electromagnetic “signature” (presence) of a weapon or an aircraft on a terminal, which “gives it [the weapon] its very form . . . , determining the profile, the mass even the very nature of the absorbent coating of the war machine” (111). The screen therefore is seen to control war in its logistical and engagement operations and also critically as live performance and what that signifies in terms of reception, (mis)communication, and impact. The capacity of the screen to form part of a network of multiple screens that in turn connect to a wider command and dissemination infrastructure underscores the screen’s “divine” effect. From the early passages of Desert Screen, Virilio develops the theme of divinity in relation to the “squared horizon.” The analogy is pejorative in two ways, and both reflect Virilio’s concerns about the growing dogmatic influence of technology in everyday life. In the first instance, the screen’s “technical fundamentalism” (47) is set against a negative comparison with Saddam Hussein’s “mystical” (religious) fundamentalism.

Technology by implication has become the new tyranny. Second, Virilio alludes to the extended reach of the “squared horizon” in his discussion of its divine properties. Far from a positive comparison, the screen’s divinity is associated with a culture of surveillance: “These properties of the divine are put into play in civil society: ubiquity, instantaneity, immediacy, omnivoyance, omnipresence. . . . Each of us is metamorphosed into a divine being, at once here and there, at the same time” (62).

This culture of surveillance is also propagated by the screen as a site for live transmission (of images). The live image avails of its own time and space, which is the real time of the screen; in this space-time, where the image as representation has given way to the directness of presentation, we enter a zone where “the present never passes away” (22). This is the real time of a practical durée that permits no reflection, no critical distance, a time lapse that no longer distinguishes between the before or after, attack or defence” (24). This is the screen as surveillance 24-7. In the context of Desert Screen, this ever-present live image lends itself to the notion of “iconic war” (or force of intervention, as mentioned above) in which “the image itself becomes a high-performance weapon more effective than that which it was supposed to represent” (125). Critically, Virilio identifies the specific way the screen has created a “fusion” of the object and its image equivalent to the extent that the live image nullifies the space of representation “to the exclusive advantage of an untimely presentation” (57). For Virilio, this fusion is dangerous on multiple levels. First, the real time of the live image on-screen is not the present time of everyday life but a time falsified by the immediacy and rapidity of its delivery. Live transmission of the image on-screen therefore has the potential to convey deception and misinformation, because rapidity and immediacy nullify content and meaning and because extensive duration of time has been replaced by the intensive time of instantaneity (57). Deferred time is thus rendered obsolete in this electromagnetic screenplay. All of which throws into question the veracity of what is seen on-screen. It is this impact of the screen and its confusion of image and object that leads to concerns about the human capacity to distinguish between what is believable and what is fabricated, to make sense of the bigger philosophical and ideological contexts, to confirm the reliability of what is visible, and to reflect objectively on the information received.⁴
The culture of surveillance and manipulation also thrives on the impact of the “squared horizon” to shape individual behavior. Real time and image fusion contribute to the collapse of consciousness in the electromagnetic dromosphere, negating the human skills of reflection and objective distance required for critical decision making. For Virilio, the screen facilitates this eclipse of time and mind and goes even further in the way it reproduces a type of “telespectator” who has been conditioned by the logistics of the screen. Of particular concern for Virilio is the capacity of the screen to forge public opinion through the interposition of images. In the absence of deferred/reflective time, a conflict of proximity of images creates a vacuum of democratic consensus (“weighing images in order to show nothing” [21]), evacuating meaning from the screen and leaving the viewer in a state of “weightlessness” (44), “voyeurs” and “victims” at the same time. Advancing no position other than that of confusion, the “squared horizon” looks to redefine democratic opinion based on the immediacy of the emotive—the “tele-affect.”

The “squared horizon” is a way of envisioning the function of the screen, including multiple screens, in matters of war, conflict, and everyday life. The contributions to this special section invite us to think of the “squared horizon” as a metaphor for the interposition of the screen in visual culture today and as a metaphor for broader conceptual and philosophical reflection on the role of technology in late modernity. The “squared horizon” evokes the fragmented, pixelated existence of late capitalism; the perpetual dividing up of time into ever-smaller and discrete units; the deferred, bracketed-out future in which our traditional understanding of the “horizon” is challenged and put aside in favor of the instantaneous and the immediate; and the impact of urbanization, with its grid systems and blocks on our experience of space, time, and identity. The “squared horizon” can also be viewed as a diverse conceptual and philosophical tool to enable us to think of new ways of reading Virilio’s work. As such, it can be deployed as a critique of electromagnetic, technological, and digital change; as a methodology per se—a mode d’emploi that captures in its dipolarity the tensions in our perspectives on the past, present, and future; as a frame (televisual, textual, topological, topographical, and criminal) that limits representation and offers critically new ways of seeing and reframing from within the frame; as a trajectory (futuristic, immanent, and historical) that traces movements, displacements, and relationalities that situate Virilio at the intersection of the modern, the postmodern, and the hypermodern; and crucially as a form of resistance—a variation on the idea of “sacred humanism” invoked by Virilio as a response to technological change and explored in detail by Armitage (2013).

The articles relate the “squared horizon” to issues of political, cultural, and ethical concern in our technoscientific societies, in particular the function of the image and the screen in cultures of surveillance and “mug shot” profiling, in the manipulation and control of public taste and opinion, in the collapse of subjectivity face-to-face with the “negative abyss” of the screen, in the ever-increasing self-vacancy of social media platforms, and in the concomitant creation of new problematic forms of “subjectivity” in the “digi-child.” Some contributions seek to “reposition” Virilio ethically beyond the “squared horizon”—seeing in resistance to cybernetic modernity an ontological humanism inspired by the “theological turn” of recent
Continental philosophy or another type of humanism derived from a Lyotarian “inhuman,” itself a return to the source of a sublime sentiment that challenges the propaganda of progress. In “The Negative Abyss: Surface, Depth, and Violence in Virilio and Stiegler,” Mark Featherstone suggests that the essential property of the screen—absolute surface—closes the viewer off in solipsistic space and creates the effect of infinite depth, which empties him or her of all content and transforms the viewer into a “tech-no-body” possessed by a fragmented, fractured self. Picking up on the metaphor of the horizon (including Edmund Husserl, who saw the horizon as that which we must work toward to progress through time), Featherstone discusses the negative horizon in Virilio, which closes in on the viewer and reduces his or her ability to think through the future. Sophie Fuggle, in “Pixelated Flesh,” uses Virilian concepts, including the “squared horizon,” to analyze the politics of fear at work in the framing of criminality via the prison documentary and crime drama. She claims that it becomes possible to align the alienation produced via the television screen as placeholder, bringing us into close, personal proximity with the criminal other while holding us at a distance by using a series of aesthetic techniques and acts of framing that refuse all possibility of identification. Virilio’s analysis of the “pixel” is particularly useful in this respect, given the use of pixelation to mask an individual’s identity from viewers. Brian Sudlow in “Inner Screens and Cybernetic Battlefields: Paul Virilio and RoboCop” draws direct links between the threat to the human subject posed by cybernetics and the war of communication and José Padilha’s recent version of RoboCop (2014). In particular, Virilio’s (2002: 72) analysis of the soldier-citizen in Desert Screen—a dehumanized telespectator unaware of the existence of the horrors of war and in thrall to the “dream partners of a Pentagon-capitalism”—provides a critical lens through which to explore the dilemma of the heroic and the excluded other. Virilio’s analysis of the “squared horizon” clarifies the dynamics of RoboCop as a mobile communication satellite and as a weapon in the hands of late capitalist adventurers.

In “Dromospheric Generation: The Things That We’ve Learned Are No Longer Enough” Felicity J. Colman analyzes the digital life of children at play. For children, the animation of life is in part supplied by mediating encounters with different platforms. In animating things on-screen, digital life provides children with instructions for negotiating the functional utilities of consciousness’s mechanisms as situation and as event. This kinedramatic digital world (Virilio 1995) produces affective modalities for subjectivity to inhabit and at the same time seeds knowledge of the potential of a state of unreadiness to hand in the desire to beat the algorithmic pathway. Virilio’s theory of the spectatorial behavior of the digi-child does not allow for any components of a digital becoming; rather, the dromosphere’s destiny is in geopolitical entropic mutation. Colman, however, argues that playing interactive games provides an epistemological platform from which experience and conscious-ness are given direction. Using examples of digital life as made for the “digestivolution” of children (gender humanization by edutainment), she asks if and how alternative becomings emerge through the kinedramatic digital animation produced in dromospheric conditions. In “Light and Illumination: Paul Virilio’s Neoplatonism and the Theological Critique of Modernity” Neil Turnbull claims that Virilio should be viewed as an advocate of the “theological
turn” in contemporary philosophy and social theory avant la lettre. He suggests that the medieval theopolitics of Nicholas of Cusa is especially relevant for Virilio and that the key to understanding Virilio’s entire project is his attempt to rework the lux/lumen distinction that was of central importance to Christian Neoplatonic metaphysics in the late medieval period. This distinction, he argues, is the basis for a deep hermeneutics of the contemporary technoscientific “enframing”/“squaring” of light and the subsequent forms of “false illumination” that it effects in relation to the “squared horizon” of modern screen existence. Finally, in “Rewriting Modernity: Topographical and Topological Variations in Paul Virilio’s Le futurisme de l’instant” McCaffrey rereads Virilio, drawing on the distinction between topography and topology to argue a case for Virilio as a rewriter of modernity. Invoking Jean-François Lyotard’s notion of rewriting modernity as an unbroken process of accumulation founded on affective life in “Re-writing Modernity” (1987) and “Argumentation and Presentation: The Foundation Crisis” (1989), McCaffrey enlists topology as a horizontal spatial structure that enables us to rethink space, time, and modernity outside the limits of the “squared horizon.” McCaffrey deconstructs the topography of the “squared horizon” as a relationality in an unfolding continuum, where spaces exist ontologically and where the immaterial forces of the dromospheric and the atmospheric generate a relational and historical connectedness.

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Notes
1. Virilio’s theory of the oblique in architecture bears some comparison with the periscopic narrative form in contemporary literature, particularly the work of W. G. Sebald in his novel Austerlitz (2001). Listen to the interview in Sebald 2012.
2. US and British troops are on the “ground” but only in a training and “facilitating” role.
3. The development of “killer robots” is already under way and was discussed at an informal meeting of experts at the United Nations in Geneva in May 2014. Also defined as lethal autonomous weapons, “killer robots” can select and engage targets without any human intervention. It is claimed that this technology is advanced. The development raises wider questions about responsibility, compliance under international law, and the ethics of automation in warfare. See BBC News 2014.
4. Bernard Stiegler (1998, 2009) has contributed significantly to this debate by looking at the ways this technological transformation has been preceded and exacerbated by a spiritual decline that has left people thinking in the short term rather than making long-term decisions about the future. His argument resonates strongly with the views of Susan Greenfield (2015), who claims that our current addiction to screen media is undermining the complexity of consciousness that we identify with human thought.
5. My colleague Sophie Fuggle and I cohosted a one-day conference at Nottingham Trent University in June 2014, “The Squared Horizon: The Frames and Trajectories of Paul Virilio,” which brought together academics, scholars, and artists working on Virilio’s oeuvre. This special section builds in part on the success of this event by offering a selection of the papers.
References

Filmography

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