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Kant, cosmopolitics, multiperspectival thinking and technology

Diane Morgan [a]
[a] School of Fine Art, History of Art & Cultural Studies, University of Leeds, Leeds LS2 9LT, UK

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diane morgan

KANT, COSMOPOLITICS, MULTIPERSPECTIVAL THINKING AND TECHNOLOGY

i introduction: the enlightenment and its critical legacy; or, why it is important to revisit kant on technology

"The Enlightenment is totalitarian," "[it] behaves as a dictator towards men," "whatever does not conform to the rule of computation and utility is suspect": as a point of departure for a discussion of Enlightenment thought and cosmopolitics, Adorno and Horkheimer's analysis of the period and its legacy is, one could safely say, somewhat discouraging (6, 9)! The enlightened claims to think humanity *as a whole* and to think humanely for all are associated by Adorno and Horkheimer with the worst abuses of power and technological horrors:

> Enlightenment dissolves the injustice of the old inequality – unmediated lordship and mastery – but at the same time perpetuates it in universal mediation, in the relation of any one existent to any other. Not only are qualities dissolved in thought but men are brought to actual conformity [. . .] The unity of the manipulated collective consists in the negation of each individual: for individuality makes a mockery of the kind of society which would turn all individuals into the one collectivity. The horde which so assuredly appears in the organisation of the Hitler Youth is not a return to barbarism but the triumph of repressive equality, the disclosure through peers of the parity of the right to injustice. (12–13)

The abstractions reason, human nature and, by extension, the other terms so central to thinking what a cosmopolitics might be – i.e., "universal community," international laws, human rights – become ideological instruments of manipulation, blanket statements used to smother particularity and dissent. The distinction between the public and private self, so crucial to Kant's reflections on a necessary space of free expression and exchange of ideas – and therefore also central to cosmopolitical concerns – has become a schizoid split, a constitutional contradiction, a bewildering mismatch between the world of duty and obedience and the elusive world of freedom. Direct action in the everyday world of work and exploitation being precluded, frustrations are serviced by the culture industry; this mind control by other means (Bambi being one of them) fills the empty space of a public sphere, further compounding alienation. Kant's philosophy, so the argument goes, aids and abets such oppression by guaranteeing a homogeneous world in which everything fits and has its place through

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a promulgation of the "schematism of pure understanding," that deterministic subsumption of the particular under the general. The general principle is abstract, detached, strong, brutish; it crushes the weak particular in the implementation of its colonising "rationalisations":

> The system the Enlightenment has in mind is the form of knowledge which copes most proficiently with the facts and supports the individual most effectively in the mastery of nature. Its principles are the principles of self-preservation. Immaturity is then the inability to survive. The burgher, in the successive forms of slaveowner, free entrepreneur and administrator, is the logical subject of the Enlightenment. (83)

Differently, but still virulently, other commentators draw on biographical anecdotes relating to Kant for evidence that the philosopher himself was one such subject, a survivor whose longevity was bought at the price of humanity. Harmut and Gernot Böhme describe his life as "monotonous," barely human, as it was "completely measured out into prescribed doses [*eine wohldosierte, monotone Lebensweise*]" (395; my trans.). Soscenko adds that the systematic subjection of his body to prophylactic routines turned him into a walking clock and concludes: "Such a life cannot be considered to be ideal insofar as he who leads it is in fact a mere machine" (qtd in Goulyga 175–76; my trans.). Nietzsche, too, sees a match between Kant, the university administrator who "submitted himself to [institutional] regulations," and his philosophy, designed for a "mere clattering thought- and calculating-machine [*klappernde Denk- und Rechenmaschine*]" (*Untimely Meditations* 140). The crusty Kant encapsulates the petrified and petrifying Kantian system and produces the "automaton of duty": "the machinal form of existence as the highest, most venerable form of existence, worshipping itself (Kant: the *Fanatiker* of the formal concept 'Du sollst')" (*Twilight of the Idols* 134).

Not only is Kant criticised for being a human-machine himself, but his system is also deemed overly mechanistic, dangerous, inhuman. To compound matters yet further, he is criticised as providing an inadequate and reductive account of technology, one that fails to understand its creative potentiality as *poesis*, as a "bringing forth" or "mode of disclosure."[1] Such an interpretation is based on Kant's analysis of the machine in works such as the following:

- The *Metaphysical Foundations of Natural Science* (1786) where machines are presented as "mere tools" designed by a creator and animated by external, moving forces; they are regarded as devoid of intrinsic "formative forces or drives" (*Schriften* 96).
- The *Critique of Practical Reason* (1788) where rational beings, including humans, are defined as ultimately inscrutable "intelligible subjects," i.e., they do not wholly belong to the world of sense wherein they would be completely "mechanically determined" and therefore not free. Kant insists that it cannot be conceded that humans "have their determining ground in something completely beyond their own power, i.e., in the causality of a Highest Being which is different from them and upon which their existence and the entire determination of their causality absolutely depend," otherwise "man would be a marionette or an automaton like Vaucanson's, fabricated and wound up by the Supreme Artist; self-consciousness would indeed make him a thinking automaton but the consciousness of his spontaneity, if this is held to be freedom, would be a mere illusion" (*Critique of Practical Reason* 104–05; trans. mod.). Freedom is to be conceived as transcendental, i.e., "independen[t] from everything empirical," if it is to be seen as anything more than "the freedom of a turnspit [*Bratenwender*], which when once wound up also carries out its motions of itself" (100–01).
- The *Critique of Judgement (Aesthetic Judgement)* (1790) where the prospect of imitated bird song is evoked and the spectre of artificial birds is in the air, to the great disturbance of those who have cultivated a sense of taste grounded in the "superiority of natural beauty." The deceptive artificiality of such ornithological replicants destabilises the cultivated person by robbing him of his refuge

in what is assumed to be natural as a way of escaping the superficial vanities of social joys. Illusion, coarseness and instability spring up where he expects to find the moral solace of disinterested beauty (*Critique* 159, §42; 89, §22).

- Also, in the *Critique of Judgement (Teleological Judgement)* (1790) machines are differentiated from organisms: the former are characterised by a mere "motive power [*bewegende Kraft*]," whereas the latter, which possess a "self-propagating formative power [*sich fortpflanzende bildende Kraft*]," organise themselves according to a recursive causality – they are both cause and effect of themselves, they both produce themselves and are the product, and as such have "nothing analogous to any causality known to us" (*Critique* 22–23, §65; trans. mod.). Machines are again viewed as mere tools (as means to an end) and not as ends in themselves (unlike rational beings, including humans).

By limiting himself to the model of the blind mechanism of the clockwork watch, which is made by an artificer to be pinned or strapped on and used as an ostensibly self-effacing time-telling instrument, Kant can be seen as not only underestimating the far more sophisticated potential of technology but also deceiving himself about the impact of the watch on the human (*Critique* 22, §65).

The importance of not underestimating technology's effect on the human was clearly seen by Freud. He was also keenly aware that this effect is complex, because, by its very nature, technology's relationship with the human is contradictory and ambivalent: technology both empowers and weakens the human; it represents to the human both an ally and a foe. Writing in 1930, Freud was finely attuned to the dangerous *malaise* of the reorganised human within the artificial, technologised environment he/she has, after all, created for him/herself. Hence, in *Civilisation and its Discontents*, he writes:

> With every tool man is perfecting his own organs, whether motor or sensory, or is removing the limits to their functioning. Motor power places gigantic forces at his disposal, which like his muscles, he can employ in any direction; thanks to ships and aircraft neither water nor air can hinder his movements; by means of spectacles he corrects defects in the lens of his own eye; by means of the telescope he sees into the far distance; and by means of the microscope he overcomes the limits of visibility set by the structure of the retina. In the photographic camera he has created an instrument which retains the fleeting visual impressions, just as a gramophone disc retains the equally fleeting auditory ones; both are at bottom materialisations of the power he possesses of recollection, his memory [...] Man has, as it were become a kind of prosthetic God. When he puts on all his auxiliary organs he is truly magnificent; but those organs have not grown on to him and they still give him much trouble at times. (279–80)

In this evocative passage Freud draws our attention to the importance of having an account of technology which is alert to the *psychological* implications for humans of their radically transformed environment. Technology brings with it a distancing from the life-threatening "forces of nature," facilitating the "exploitation of the earth by man." It also paradoxically brings him dangerously closer to other natural forces, equally dangerous and destructive, such as those psychological drives alimented by unhappiness, alienation, insecurity and anxiety (280). The psychological states of hatred and irrationality are seen, in turn, to produce the sociopolitical state of violence and barbarity which hovers ominously over Freud's moment of writing, thereby threatening to undo the painfully accrued cultural achievements of centuries. However constitutional and even productive the mismatch between the human and his/her environment is perceived to be by Freud, the disparity between the modern human and his/her prosthetic world is one which is particularly accentuated, aggravated as it is by the increasing dominance of technology and, one could add, the human's inability to respond to its challenge in a "mature" and sophisticated manner.[2]

For Freud, of course, the human's incapacity to react to anything maturely and with sophistication stems from the conflictual composition of the

psyche which, by its very nature, provides a challenge to the Kantian system. Indeed, Freud's version of the "categorical imperative," the superego, far from empowering the human to overcome his/her limits, instead further heightens the anxiety and unhappy instability of the modern subject. The superego has a disproportionate sense of morality and its unrealistic and unrelenting demands for obedience arise from its misinformed assumption of mastery over the recalcitrant and abysmal id (321). Surveying a world simmering with latent aggression and about to erupt, Freud concludes *Civilisation and its Discontents* by wondering whether Eros will one day reassert itself against Death and if so "with what success and with what result?" (340). One year later and he is depressing Einstein with his bleak yet sadly accurate assessment of the prospects of success for the sort of transnational, cosmopolitical organisation which interests me in this article, namely the League of Nations with its mission of establishing world peace.

Having exposed to us the exorbitant price we pay in mental health for so-called "civilisation," however, Freud concludes *Why War?* with the puzzling words: "But one thing we *can* say: whatever fosters the growth of civilisation works at the same time against war" (362; emphasis in original). These words might strike us as just as enigmatic as Adorno and Horkheimer's concluding remarks in "Elements of Anti-Semitism": "Enlightenment which is in possession of itself can break the bounds of enlightenment [*Die ihrer selbst mächtige, zur Gewalt werdende Aufklärung selbst vermöchte die Grenzen der Aufklärung zu durchbrechen*]" (208). These final remarks from three of the Enlightenment's harshest critics – whether those criticisms be implicit, as is the case with Freud, or explicit, as is the case with Adorno and Horkheimer – do invite an attempt somehow to pursue the project of modernity through and beyond the twentieth-century abyss of technologised genocide and mass destruction.

Given the association outlined above of Kant's philosophy with the fatal mechanisation of thought and of society as a whole, the stakes involved in reinscribing the role technology plays within his oeuvre, particularly when considering the possibility of a future-oriented cosmopolitical project, are high. In this article I venture to begin such a reinscription by drawing attention to passages in Kant's work where the human–machine relationship can be seen as going beyond the instrumental – which encapsulates the alienated barbarism of modernity for Adorno and Horkheimer – so as to open up the prospect of an inventive symbiosis between the two of them and Kant. That is to say, rather than defining one against the other (the human as moral person is an end, where the machine is a mere means), I want to draw attention to aspects of Kant's thinking where the defining limits of both human and machine may be seen as being tested. Such a reinterpretation should not be regarded as a way of instrumentalising the human or humanising the machine; rather, it permits us to engage with the Enlightenment as a sociopolitical project, as a projection towards the future, towards a future that should not be allowed to get worse or revert to the horrors of the past.

ii kant, technology and the multiperspectival thought it produces

In *Answer to the Question: What is Enlightenment?* (1784), Kant depicts the human as a combination of a "private self" and a "public self," each self involving a different understanding of technology. The first, a limited, restricted "self," is the product of an external creator (society and its institutions). This "self" is a "mere cog in the machine," a passive form of machine which has to reproduce automated movements, which obeys orders and carries out instructions. This "self" is just one part of a much greater whole, which it cannot oversee due to the hierarchical division of labour which maintains, and is requisite for, social stability and order. By contrast, Kant develops an analysis of another "self," the much freer, autonomous and imaginative "public self" whose different conjunction with technology can potentially produce innovative schemes and ideas (*Political Writings* 56). This entry into the cosmopolitan "world of scholars" leads to a radically different experience of technology – the technology of

the postal service, the printing press, long-distance travel and, to use a contemporary example, the interactivity of the internet/www as contributing to the production of the "public sphere," wherein the "private self" is converted into a different sort of animal. By assessing and contributing to the cosmopolitan world of global information and ideas, the "public" self can express itself and act more freely, exploring the extension of the (personal and intersubjective) self through telecommunications.

This analysis might well leave us cold and unconvinced. Much depends on the extent to which we see Kant as encouraging a permanent creation of ourselves, a testing of our limits, an interrogation of the "our," of what it is to be human,[3] and how we can conceive this ongoing enquiry as being facilitated, or even made possible, by technology.

In *Idea for a Universal History with a Cosmopolitan Purpose* (1784), Kant explores the feasibility of our gaining a different perspective on events which befall us in this world. Reaching beyond the local, the particular or the individual, i.e., beyond direct experience which can be so limited and limiting in scope, we might hope to cultivate a sense of a "larger scale," a wider world stage, which could allow us to surmise a "regular progression" in human affairs (*Political Writings* 41). Such a theoretical vantage point, were we able to hold on to it as a regulative idea, could present the prospect of an eventual transvaluation of ourselves as a species, with the technical artificiality of guy-ropes and props, whilst not straightening out all our individual warped ways, at least compensating for some of our inadequacies so as to produce on a different level a whole which is more than a sum of its parts. Humans, unlike sheep, Kant claims, need continually to produce – not just reproduce – themselves and technology is a crucial, even constitutive, partner in this ongoing project of construction.

For instance, the "battle of materiel," that is, war, which epitomises the ambivalence of "unsocial sociability," produces new bodies.[4] It can be seen as an attempt "to form new bodies" through the destruction (*Zerstörung*) and bodily dismemberment (*Zerstückelung*) it perpetrates (*Political Writings* 48). Bellicose "antagonism," heightened by the instruments of warfare, is seen as unwittingly furthering cosmopolitics by bringing humans into such violent contact with one another they are gradually led – both by and against nature – to the costly realisation that a peaceful coexistence, mediated through the techniques pertaining to a "federation of peoples," ultimately serves their interests best. The ensuing "new bodies" are understood as bridging articulations between groups and between states and as a brace spanning and comprising a whole. Once worn out by constant friction, their design is gradually optimised (*daher müssen* [*die neue Körper*] *ähnliche Revolutionen erleiden*) in the search for ever longer-lasting configurations (*Political Writings* 48). These "bodies" are forged "partly by an optimal internal agreement of the civil constitution and partly by common external agreement and legislation." Not yet "natural" – half self-imposed, half externally regulated – still in need of safety mechanisms (multinational task forces, observers, NGOs), this emerging trans-national organisation, Kant suggests, might eventually be able to "maintain itself automatically," as human nature itself will have been overhauled and reconfigured: "our species [is led] gradually upwards from the lower level of animality to the highest level of humanity" (*Political Writings* 48). Nature's ruseful art is the human's conjunction with technology: this is "the art which is nonetheless his own" (*Political Writings* 48). Hence machines feature not only as lethal instruments for expressing human negativity but also as positive models of a human for whom "maintaining the whole" would be natural. They thus provide the means by which human all-too-human destructiveness may one day be overcome. As such, machines, and technology generally, feature as catalysts for change.

Of course, this vision of a conversion of conflict into peaceful coexistence is also a mirage which disappears before our eyes. Indeed, Kant gives us ample occasion in the text to fall back into a despairing and resigned abandonment of hope: there is no doubt the world is also a "hell of evils" (*Political Writings* 48). Crucial to maintaining the notion of a

future-oriented cosmopolitics against the blatantly stacked odds is the cosmological vantage point, and this is also informed, given form, by technological practices. One of the means which becomes *an extension of ourselves as project* – a project which is *also* the fulfilment of our potential or "original capacities" – is the telescope (*Political Writings* 51). Repeatedly Kant refers to the "different angle," the "large scale," the "great world drama" in connection with the seeing of ourselves as terrestrials (*Political Writings* 41, 42, 53). Astronomical observations made possible by telescopes address the question of the formation of the cosmos, the nature and composition of the universe, the planet's place within in, the possibility of extraterrestrial life and how it might differ from ours – and these enquiries give us the perspectives requisite for thinking a *global* identity and *global* politics.[5] Technology permits us to trace indications of how and when the universe was formed. It also enables us to assume a theoretical – or even, in more modern times, an actual physical – position in outer space which renders the conception of the planet *as a whole* possible. The information gleaned from such observations serves as an index for Kant of "purposeful natural processes" which can bolster our faith in a development of human nature towards a general, shared interest "in maintaining the whole" (*Political Writings* 50–51). A Kepler, who "found an unexpected means of reducing the eccentric orbits of the planets to definite laws," and a Newton, "who explained these laws in terms of a universal natural cause," are tool-using tools enabling us to create "guiding principles" through which to conceive a "universal history" which implicates us in the future, and past, of our planet and its denizens (*Political Writings* 42). The observation and exploration of the "starry heavens" become an integral part of our definition of ourselves *and* our responsibilities.[6]

The microscope complements the telescope's opening up of ever larger "worlds beyond worlds" with its revelation of the ever smaller (*Critique of Practical Reason* 166). The technologically mediated realisation that, to cite the *Critique of Judgement*, there is "nothing so small which in comparison with some still smaller standard may not for our imagination be enlarged to the greatness of a world" provokes a disorienting decentring of the human through which the "feeling of a supersensible faculty within us" – our autonomy, our freedom and its responsibilities – is concomitantly "awakened" (97, §25).[7] Relying on technology to supplement the fallibilities of our senses, so we can see and explore ever further, also demonstrably exposes the relativity and constructedness of our limited, particular world, our *Umwelt*. However, it thereby also triggers a reaction in us, sparking a rethinking or reinscription of ourselves within (to quote a pre-critical work) the "entire span of nature [*in dem ganzen Umfang der Natur*]" (*Universal Natural History* 194). This confrontation with the dynamic world of magnitudes opened out by technology wrenches us out of the world of anthropomorphised nature. No longer is the natural world conceived of as just serving purposes – the cork tree does not exist so that we can plug our wine bottles[8] – no longer is it press-ganged into servitude to human concerns and needs (some important, some more trivial).

In *Camera Lucida*, Roland Barthes provocatively avows that, when looking at certain photographs, he wanted to "be a primitive, without culture," he wanted to relinquish *studium* – that theoretically informed "application to a thing, taste for someone, a kind of general enthusiastic commitment" – so as to favour the aleatory, ambivalent *punctum* (7, 26ff.). Similarly, Kant too talks at times of letting the world just strike the eye as an image:

> So, if we call the sight of the starry heaven sublime, we must not found our estimate of it upon any concepts of worlds inhabited by rational beings, with the bright spots, which we see filling the space above us, as their suns moving in orbits prescribed for them with the wisest regards to ends. But we must take it, *just as it strikes the eye* [*bloß wie man ihn sieht*], as a broad and all-embracing canopy: and it is merely under such a representation that we may posit the sublimity which the pure aesthetic judgement attributes to this object. Similarly, as to the prospect of the ocean, we are not to regard it as we, with our minds stored with knowledge on a variety

> of matters, (which, however, is not contained in the immediate intuition,) are wont to represent it in *thought* [emphasis in original], as, let us say, a spacious realm of aquatic creatures, or as the mighty reservoirs from which are drawn the vapours that fill the air with clouds of moisture for the good of the land, or yet as an element which no doubt divides continent from continent, but at the same time affords the means of the greatest commercial intercourse between them – for in this way we get nothing beyond teleological judgements. Instead of this we must be able to see sublimity in the ocean, regarding it, as the poets do, according to what *the impression upon the eye reveals* [*sondern man muß den Ozean bloß, wie die Dichter es tun, nach dem, was der Augenschein zeigt*] [. . .] (*Critique of Judgement* 121–22, §29)

This quasi-photographic moment of the sublime – other passages are more cinematic[9] – wherein the act of judgement (*Beurteilung*) relinquishes its usual processing of natural phenomena, suspending its usual weighing or sizing-up operations, interrupting its strategic assessment or estimation of the terrain, produces in the third *Critique* no "guiding principles" for cosmopolitics like those tentatively suggested in *Idea for a Universal History with a Cosmopolitan Purpose*. However, the threatening and humiliating momentary check (*Hemmung*) on the life-forces that it provokes is "followed at once by [their] all the more powerful outpouring [*und darauf sogleich folgenden desto stärkern Ergießung*]" and this strong, stimulating feeling communicates to the shaken-up mortal, whose daily preoccupations with worldly goods, health and life – i.e., with everyday instincts of self-preservation – have been suddenly torn from him/her, the idea of an enhanced (*erhöhtes*) life (*Critique of Judgement* 91, §23; trans. mod.). Emerging from the humiliation of the encounter, embodied in the person who has strained his/her imagination in his/her attempts to grasp the idea of all that is great, is the idea of humanity (*Menschheit*), empowered by reason (*Critique of Judgement* 105, §26).

Whereas section 29 of *The Critique of Judgement* encouraged us to envision the ocean as an image of calmness or of tempestuousness, rather than as "an element which no doubt divides continent from continent, but at the same time affords the means of the greatest commercial intercourse between them," another perspective is nurtured in the *Perpetual Peace* essay. In the elaboration of the necessity of a *global* application of enlightened thought, Kant grounds his argument in natural – or, more precisely, physiographical – law. Everyone's right to visit foreign lands and to be treated with hospitality is anchored in the primordially communal possession of the earth's surface (*des Rechts des gemeinschaftlichen Besitzes der Oberfläche der Erde*) (*Political Writings* 106ff.). This "right to the earth's surface" arises by virtue of the planet's spherical shape, which pre-empts an infinite dispersal of human beings. Earth dwellers are therefore ultimately obliged to find means of getting on with each other, since there is no alternative, no escape, as there would be with an endless, flat surface. He also reminds us that originally, before the springing up of states and countries, no-one had any more right than anyone else to possess patches of the earth's surface: the right to hospitality draws on this "natural law" as well. Loosening the possessive grip yet further, he states that large areas of the globe, comprising perilous seas, recalcitrant deserts, and insurmountable mountain ranges, are inhabitable for us as a species. The effect of these vast expanses of land and sea is to separate humans from one another. Hence the importance of systems of transport and communication – whose motor is trade – for overcoming such elemental adversity and for bringing humans, against the odds, into contact. Understood at this humbling level – from the perspective of vulnerable creatures clinging to a finite, limited planet, working in conjunction with innovative maritime and land technology, as best they can, to overcome the hostility of climate and terrain – the diligent activity of traders and "commercial intercourse" generally emerges as valiant and constructive. Whereas sea-robbers and pillagers work against the natural law in their disrespect for the primordial right to hospitality (since no human is originally more at home on this planet than another), traders, cognisant of the attendant dangers of travelling

to foreign territories, build up helpful reciprocal arrangements for the protection of goods and for the shelter of the person. As such, and in the very face of colonial outrages – acknowledged at several points in the text – in, for instance, the Sugar Islands,[10] the "spirit of trade [*Handelsgeist*]" could be seen as paving the way towards an eventual cosmopolitan constitution establishing international law and universal human rights as, so the argument goes, commerce in its essence prefers peace.[11] Two centuries on and we no doubt have a different analysis of global capitalism, too aware that free trade does not need, let alone wish for, fair trade. However, Kant has presented us with another perspective to add to the angles of vision considered so far: moving from the enlargements of ever greater worlds (telescopes) through the close-ups of ever smaller worlds (microscopes) to static moments (snapshots), here we are suddenly looking at the planet from a radically different vantage point, from afar, from a perspective mediated by technology, observing humans working with and against the surface of the earth.

The last technologically informed perspective to be looked at in this article shifts us again, away from the terrestrial surface into its depths. The technologies of the earth sciences attempt to plunge into the innermost nature of the earth.[12] They delve much further than enterprising farmers digging the topsoil, scratching boundaries into the smooth surface of our planet; they venture beneath the seas on which those intrepid merchants evoked earlier sail to exchange goods on foreign shores. Indeed, orography (with its study of the formations and features of mountains), geogeny (with its interest in the formation of the earth's crust), and geognosy (with its knowledge of the structure of the earth's crusts, its strata and their relative positions) refocus our attention on a world which is impervious to our ardent wish for it to signify something *for us*. As was the case earlier with the worlds opened up by telescopic and microscopic lenses, here too changes in scale interrogate the human, forcing a reconsideration of his/her place and purpose, as the ground beneath his/her feet, the product of an inconceivably long stretch of time during which a crust gradually and unequally solidified itself gets reinscribed into a ongoing process of folding and refolding, sifting and shifting. Addressing the question of whether the planet is ageing, whether it used to be more luxuriant, less recalcitrant, requiring less technological intervention to prompt it to fruition, he dismisses various apocalyptic scenarios of degeneration as foolish projections of old people nearing the grave. However, his conclusion is that the planet might well be gradually ageing, though what this prognosis actually means is unclear in that such a change, the result of minute accumulative effects, will remain imperceptible to us as a species. It is just as likely, he adds, that the whole planet will explode, that its molten innards will blast it apart, but this surmise no more answers the question about ageing than taking earthquakes or fires into consideration when assessing the ageing process of buildings (*Frage* 193–213).

Contributing two years later to the lively discussion of the 1755 Lisbon earthquake,[13] Kant again rejects attempts to see the natural disaster as meaning something *for us*. Rather than trying to extract meaning – reading it, for example, as punishment for sins or a sign from God – he says one can either resort to description, trying to capture the unimaginable horror those people must have felt when the earth broke up under their feet, knowing as we do how used we all are to thinking of ourselves as the masters of its surface, or one can investigate the phenomenon scientifically, devoid of human involvement. Any lessons we draw from the event are ours. God is *not* trying to tell *us* anything. Indeed, a natural disaster underscores our insignificance and isolation on this planet, and should consequently activate our "love of humanity," our sense of belonging together (*Geschichte* 471). At this level quirky beneficial effects might well be generated from the threat of an earthquake: a noble-hearted Prince, moved by the distress of his panicking neighbours as the rumbles start, might decide not to inflict on them on top of everything else the devastation of war (since, one might add, they are about to die anyway) (*Geschichte* 473). This perspective yields no more substantial sustenance for human-oriented concerns.

iii conclusion: the implications of a rethinking of technology for kant's notion of cosmopolitics

If one could draw together these radically different perspectives, these different ways of approaching the issue of humans, their condition and destination, their developmental interaction with and self-definition through technology in order to have an overall picture which combines the telescopic movement out into the heavens, the microscopic movement into the innumerable worlds within even the smallest thing, the lateral mapping across the surface of the globe, and the plunging into the body of the earth . . . but one cannot. That is the point. As I have tried to demonstrate in this analysis of the articulation between various technologies and humans as evolving creatures, Kant's writings refuse that one perspective, that one fixed position. Indeed, such a refusal is integral to, and necessary for, his cosmopolitical project. The fostering of a multi-perspectival vision, which thinks the self in relation to other – actual and possible – viewpoints on itself and in terms of the positions of others who surround it, is of crucial importance for a more generous politics which engages more positively and productively in the world. This vision requires technology.

Such a reappraisal of the place and role of technology within Kant's writings opens up the prospect of a heated dialogue with Adorno and Horkheimer. As I evoked at the beginning of this essay, their provocative analysis of the Enlightenment and of the work of its emblematic figure, Kant himself, is that both the period and its key thinker pave the way for the homogenised, alienated, and totalitarian societies of the twentieth century. Not only is this analysis predicated on the premise that Enlightenment thought is negatively "mechanistic," but it also relies on a reductive reading of the human–machine relationship. Machines feature in *Dialectic of Enlightenment* merely as "instruments of domination" which impoverish our experience of the world (37). Alternative ways of conceiving of this relationship – ways which are inventive and which necessarily remain plural – are occluded both within Adorno and Horkheimer's conception of technology and in their reading of Kant's ideas relating to technology. A reassessment of the role that technology plays within the Kantian system, particularly with regard to his thinking of cosmopolitics, might bring two benefits: it might not only allow us finally to break with well-worn and stereotypical accounts of the life and work of the "sage of Königsberg" but also sharpen our sense of our own possibilities for action in this technologised world. As Martha Nussbaum reminds us:

> In our own world, moreover, there are many practical opportunities for world citizenship that were simply not available to the Stoics or even to Kant and his contemporaries [. . .] The information revolution is rapidly multiplying the possibilities for action as a world citizen. (135)

notes

1 See, for instance, Alistair Welchman's "Machinic Thinking" for one such analysis of Kant's "reductive" analysis of technology: "Machines similarly have been thought privatively by the tradition. This definition of the machine reaches a certain apogee with Kant's philosophy" (Ansell Pearson 213ff.).

2 Here I am using terms which belong not to Freud but to Walter Benjamin: "The destructiveness of war furnishes proof that society has not been mature enough to incorporate technology as its organ, that technology has not been sufficiently developed to cope with the elemental forces of society" (244).

3 See Morgan for a preliminary exploration of these questions in relation to the "sheer self-development of reason," epigenesis and schematism in the first *Critique* (75).

4 "Battle of materiel" is a reference to Ernst Jünger's idea of *Materialschlacht*, as elaborated in particular in the "Total Mobilisation" essay (Wolin 127). It seems to me that the case might be made for a parallel between Kant and Jünger's analysis of war at this point, as one could say war is for both beyond good or evil, being a fact of life and, in its ultra-technologised guise, a modern

mode of existence. The "new bodies" which emerge for Kant out of this conflict are, however, substantially different from Jünger's.

5 For the importance of the "interplanetary perspective" for Kant, see Shell (66ff.) and Morgan, *Cosmopolitics and the Future of Humanism* (forthcoming).

6 Indeed, the *Critique of Practical Reason* suggests that the human should experience him/herself both as an articulation between this and other universes and as part of earthly life, with all the responsibilities that this belongingness entails. These "two things" combined resonate within him/her, enriching his/her sense of self whilst depleting his/her sense of self-importance. The wonder of the starry heavens, Kant writes:

> begins from the place I occupy in the external world of sense, and expands the connection in which I find myself into the incalculable vastness of worlds upon worlds, of systems within systems, over endless ages of their periodic motion, their beginnings and perpetuation. (*Critique of Practical Reason* 166; trans. mod.)

Kant reminds us that we are stardust ("a mere speck [*Punkt*] in the universe"), for, of course, the atomic components (carbon, nitrogen, oxygen, etc) which make up our bodies were formed inside the stars. We are "animal creature[s] which must give back to the planet [. . .] the matter from which [they] came": along with other animals and the plants we are composed of molecules which have already been recycled many times; the fresh air we inhale has also been "breathed" many times by other life forms (*Critique of Practical Reason* 166). It is in conjunction with these other life forms that the earth's atmosphere has evolved into something quite different from that surrounding other planets. Such reflection shows the extent to which we as a species interact with other living creatures and with the planet earth. At the same time, Kant evokes an engagement "independent of animality," one the individual human shares with other "rational beings," a "determination" which "is not restricted to the conditions and limits of this life but radiates into the infinite" (*Critique of Practical Reason* 166; trans. mod.). In its direct appeal to free, autonomous will, this moral law spurs each one of us to activate "the supersensible substrate of humanity," to project the self beyond the heteronomies of conventional, mediated value (*Critique of Judgement* 208, §57). Thus conceived, the moral law enjoins us to appropriate our world, to *act* in this world, using our minds inventively and responsibly, by orienting ourselves towards the future. The cultivation of different perspectives – the interplanetary (non-geocentrically bound), the supersensory (non-anthropocentrically limited) – is, I suggest, crucial to such a cosmopolitical project.

7 For an interesting accounting of the technological decentring and recentring of the human, see Kockelkoren.

8 See Goethe (*Gespräche* 229) and Cassirer (102) for this example from Goethe and Schiller's *Xenien*. Goethe makes clear what attracted him to Kant's approach to the natural world in his 1830 letter to Zelter:

> In his *Critique of Judgement* old Kant did the world, and indeed me, a limitless service by firmly placing Art and Nature side by side and granting both of them the right to act purposivelessly according to great principles. Spinoza had already lent credibility to my dislike of absurd final causes. Nature and art are too big to be harnessed to purposes and they also don't need them, as relations [*Bezüge*] are everywhere and *Bezüge* are life. (*Briefe* 4: 370; my trans.)

9 Kant's account of the failed ocular seizure of the Egyptian pyramids, despite careful positioning – not coming too near and not remaining too far away – and despite taking time for a slow and deliberate tracking shot "from the base to the summit," is a cinematic instance of the sublime (see *Critique of Judgement* 100, §26).

10 At this point of his analysis, Kant adds another technological perspective by discussing the impact of global communications on one's knowledge and perception of current affairs. With ever-increasing rapidity, news of atrocities (such as those happening in Kant's times in the slave colonies) can be transmitted around the globe. It is the apprisal of such news by an ever-increasing proportion of the world's population which constitutes simultaneously a "world community" and the idea of "human rights." As Kant writes: "The peoples of the earth have thus entered in varying degrees into a universal community, and it has developed to the point where a violation of rights in *one* part of the world is felt *everywhere*"

(*Political Writings* 107–08; emphasis in original). Accompanying the expansion of long-distance trading (and its concomitant injustices and abuses of power) is the proliferation of links between disparate parts of the earth and the ensuing gradual formation of a "world community." Kant suggests that injustices in one part of the globe reverberate along these ever-developing lines of communication, consolidating a public sphere, which should be – which has to become – the concern of all rational beings. Once this public sphere develops, once the news of the abuses is in the public domain, it is incumbent on us to use our reason to do something about them.

11 For a discussion of Kant's "spirit of trade" and the growth of global communications, see Morgan, "Trading Hospitality: Kant, Cosmopolitics and Commerce," *Paragraph* (forthcoming special issue on hospitality, eds. Mustafa Dikeç and Nigel Clark).

12 Here I am taking my cue from Zammito's recent suggestion that we should take Kant's interest in the earth sciences seriously, especially when considering his relation and contribution to the emerging discipline of anthropology (58). Indeed, this article is concerned to show how technology informs and makes possible an examination of the anthropological questions "what is it to be human?" and "what is the destiny of the human?" These questions can only be answered, so my argument goes, by adopting comparativist and multiperspectival points of view generated and mediated through various technologies and techniques.

13 For a helpful account of this debate, see Besterman.

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Diane Morgan
School of Fine Art, History of Art & Cultural Studies
University of Leeds
Leeds LS2 9LT
UK
E-mail: dianemorgan1@aol.com