DOI: 10.32022/PHI27.2018.106-107.4

UDC: 177(049.32)

THE SPATIALIZATION OF THE WORLD

TECHNOLOGY, MODERNITY, AND THE EFFACEMENT OF THE HUMAN

Jeff MALPAS

University of Tasmania, Sandy Bay Campus, Geography-Geology Bldg., Rm. 328, Private Bag 78, Hobart, TAS 7001, Australia

Jeff.Malpas@utas.edu.au

Abstract

The idea of progress, commitment to which has been a defining feature of modernity, has almost always been associated with a belief in the progressive possibilities inherent in technology. The improvement of the world—even the achievement of some sort of utopia—has thus been seen as tied to the increasing technological mastery of the world. Yet, there are good reasons to suppose that the optimistic progressivism associated with technological modernism is misplaced, and that regardless of the various instantiations of modernity, with which technology is associated, and regardless, too, of the many benefits of particular technological advances and devices, the essential structure of technology conceals a danger within it. The key claim in this argument is that technological modernity is intimately connected with a certain

jeff malpas

mode of spatialization, and through this, to a blindness to, or even a refusal of, the necessary limits within which even technology itself comes to be. As a result, there is an essential contradiction within technological modernity that threatens the very possibility of a genuinely human—or ethical—form of life.

Keywords: ethics, human being, limit, number, place, space.

Spacializacija sveta. Tehnologija, modernost in izbris človeškega

Povzetek

Ideja napredka, zavezanost kateri temeljno opredeljuje modernost, se je skorajda vselej spajala z verovanjem v progresivne možnosti, inherentne tehnologiji. Izboljševanje sveta – celo doseganje nekakšne utopije – je potemtakem bilo obravnavano kot združeno s naraščajočim tehnološkim obvladovanjem sveta. Vendar obstajajo dobri razlogi za mnenje, da optimistični progresizem, povezan s tehnološko modernostjo, ni na mestu, da struktura tehnologije, kljub mnogoterim s tehnologijo spojenim uobličenjem modernosti in kljub številnim prednostim posameznih tehnoloških napredkov in aparatur, v svojem bistvu skriva nevarnost. Za razpravo je ključnega pomena trditev, da je tehnološka modernost intimno povezana z določenim modusom spacializacije in potemtakem s slepoto ali celo odklonilnim stališčem glede nujnih omejitev, s katerimi nastaja tudi tehnologija sama. Zato znotraj tehnološke modernosti obstaja bistveno protislovje, ki ogroža sámo možnost pristno človeške – oziroma etične – oblike življenja.

Ključne besede: etika, človeško prebivanje, meja, število, kraj, prostor.

Commitment to an optimistic progressivism has long been characteristic of mainstream politics of both the left and the right. Thus, whether one is socialist or social democratic, neo-liberal, or even neo-conservative, the tendency is to assume that we can shape the world according to our interests and desires—we can make the world "better"—and that this is possible through our increasing mastery of various forms of technology. The improvement of the world—even the achievement of some sort of utopia—is thus seen essentially to be a technological promise. Technology is progressive—even utopian—, and progress is technological.

Yet, there are good reasons to suppose that the optimistic progressivism associated with technological modernism is misplaced, and that regardless of the various instantiations of modernity with which technology is associated, and regardless, therefore, of whether technology is associated with a social democratic or neo-liberal agenda, and regardless, too, of the many benefits of particular technological advances and devices, the essential structure of technology nevertheless conceals a danger within it. Indeed, the argument I will make here is that the danger is one that threatens the very nature of the human, and since I will argue that the human and the ethical are tied together, it is also a danger that threatens the possibility of a genuinely ethical mode of life. The key claim in my argument is that technological modernity is intimately connected with a certain mode of spatialization, and much of what I have to say will involve an exploration of the nature of this form of spatialization and its connection to technological modernity, what this implies about modernity, especially as it relates to place and so also to limit, and then how this underpins the critical appraisal of modernity, including the relation between technological modernity and the ethical. In essence, the argument to which my discussion will lead is that there exists an essential contradiction within technological modernity, and that contradiction is what renders modernity problematic.

Technology and the project of modernity

Modernity, which is so closely associated with technology, is a mode of organization of the world, but it is also a project. The project of modernity is typically identified with the Enlightenment, and both are characterized by

94

their concern with the twin notions of freedom and of reason. Indeed, these two ideas are closely intertwined: reason is the purest form of freedom, and freedom is that in which reason finds its realization. The emphasis on freedom here, and on reason with it, typically (though not always) brings with it a commitment to the unbounded nature of human possibility and the seemingly unlimited power of reason. Having freed itself from the shackles of tradition and superstitious belief, human being, which is to say human reason, is free to realize itself in a way that has no a priori bounds.

Although the twentieth century, along with the unfolding twenty-first, provides ample evidence that casts doubt on the rational "progressivism" that seems to underpin the idea of modernity at work here, still this rational, progressivist ideal, and the notion of freedom that goes with it, remains a powerful element in contemporary culture and society—one that may even be said to be reinforced by the "enemies" that appear ranged against it. Extremist religious movements, to take one example, and especially extremist Islamic movements such as Islamic State, have thus typically been seen as throwbacks to a pre-modern past—as intrusions into modernity of a medievalism that cannot have any long-term viability.

Significantly, this way of understanding modernity in terms of the inexorable movement towards the realization of freedom and reason in the world—with phenomena such as Islamic State or National Socialism appearing as instances of resistance to modernity that modernity will eventually leave behind—elides the fact that modernity is not instantiated only by those social and political forms that fit the "progressivist" model. National Socialism, for instance, was not a purely anti-modern phenomenon, but incorporated strongly modernist elements within it, and can even be seen as having instantiated a form of modernism. Islamic State, in spite of its oppressive and violent character, has been a movement enmeshed with and thoroughly reliant upon modern technological systems, from weaponry and communications to forms of organization and finance, and especially in its use of the Internet. The supposedly anti-modern is thus itself part of modernity. Moreover, even many supposedly "progressivist" states and societies seem to exemplify what might otherwise be thought of as thoroughly "regressive" phenomena—the rise of xenophobic politics being one such example and restrictions on civil liberties

and the free exchange of information being another. Even the modern thus seems to include elements of the "anti-modern" within it.

One might be tempted to distinguish at this point between the "project" of modernity, on the one hand (a project that is progressivist and emancipatory), and, on the other, modernity as it names a particular period of historical development (a period that encompasses elements that are both progressive and regressive, emancipatory and oppressive). Yet, the trouble with such a distinction, simple and straightforward though it may seem, is that the project of modernity cannot be so easily disentangled from modernity as such, since to attempt to do so is to make obscure any sense in which the project of modernity can indeed be said to be "of" modernity in the first place. Only if the modern can be separated from the pre-modern or the anti-modern, such that the regressive elements that appear as part of the contemporary world can be seen as indeed the persisting elements of that which is not modern, can the idea of a distinctive project that attaches to modernity itself be maintained, and yet such a separation renders problematic the very idea of such a project, or at least, of such a project "of modernity". Perhaps part of the mistake here is to suppose that modernity is indeed something abstractly "rational", rather than "material"—as if reason were operative in history while nevertheless being apart from it; as if the project of modernity stood outside of the actual occurrence of the modern. The event of modernity is not the gradual realization of a rational ideal in the world, but rather the unfolding of a set of material processes and structures that are increasingly mediated though globalized, technological systems. One can say that this material unfolding is the unfolding of something rational, but inasmuch as reason is indeed at issue here, then it is reason as transformed—reason as it becomes technological; as it takes the form of technology. In modernity it seems as if reason and technology have become almost identical.

Technology and the technological

Immediately, the question arises as to what is meant here by "technology" and the "technological", and this was a question already at issue in the discussion of modernity, even if only implicitly, from the very beginning—it is the question I signaled at the start.

96

One way of understanding technology is to take it to be precisely the system of techniques, by which we extend our abilities to act in the world so as to realize our interests and desires—rather like a toolbox of sorts. Technology is thus a collection of devices available for use. Such a conception of technology is thoroughly instrumentalist, and instrumentalism of this sort is in complete accord with the optimistic progressivism of contemporary modernity. Yet, to take the character of technology as completely captured by such instrumentalism (if it captures it at all) provides little or no insight into the real nature of technology—it reduces the technological to the instrumental, but the instrumental is surely not identical with the technological, even if the technological may sometimes be said to operate instrumentally. This means that we must not make the mistake of thinking, from the outset, that technology is just identical with technological devices or apparatus—although such an identification is, indeed, commonplace.

One might argue that the Enlightenment itself, in its view of reason as the instrument by which freedom is achieved, takes reason itself as offering a certain "technology" of freedom. Reason is the means to freedom. This becomes all the more evident when the Enlightenment is understood, not only in relation to a set of social, economic, and political developments in the seventeenth and eighteenth centuries, but also in relation to the developments in scientific knowledge that occur at the same time (developments that all serve to interact with and to reinforce one another). The idea of reason as tied to freedom is thus itself part of a mode of thinking that sees the power of reason as exemplified in the new knowledge emerging, from the sixteenth century onwards, across the natural sciences, and to which the human sciences also aspire. The project of modernity is thus also a project of technology—not merely of abstract knowledge or contemplation, but of knowledge as it is connected with concrete forms of action and change.

Embedded in the question as to what is meant by "technology" and the "technological" is a question about what technology might itself be. There is a tendency in much contemporary discussion of technology to shy away from such a question and to reject as illegitimate any treatment of technology that tries to understand it other than in terms of discrete and differing technologies. There is, however, something odd about such a tendency. One seldom finds

any similar tendency in the understanding of science—one may well look to the way particular sciences are configured, and there are enormous differences between the way different sciences proceed, but this is not usually viewed as over-riding a broader concern with science as such. Moreover, even to talk of different technologies is already to imply a question as to what it is that unites different technologies in their technological character—in their character as, indeed, technologies. This latter types of objection are often leveled at one of the best known critiques of technology in the twentieth century, that of Martin Heidegger—a critique that stands in the background of my own account here (cf. Heidegger 1977). Heidegger's critique of technology is not unusual or idiosyncratic, however, but rather stands within a long tradition of European pessimism about modernity—a tradition exemplified by Rousseau, notably his First Discourse (cf. Rousseau 1751), as well as by Nietzsche's attacks on the life-destroying character of modernity, Karl Marx's critique of capitalism, Max Weber's analysis of the "iron-cage" of rationality, and the arguments of a range of twentieth century thinkers from Arendt and Adorno to Camus and Virilio. It is notable that such pessimism is generally less evident in Anglo-Saxon culture which has remained more strongly progressivist and optimistic—and so also more inclined to remain more unequivocally committed to the ideals of freedom and reason, especially as enshrined within liberalism. Inasmuch as Heidegger's own political misadventures have led to his perception as a reactionary thinker (Heidegger was the Nazi-appointed Rector at Freiburg University from 1933-34), so Heidegger's critique of technology has also been seen as tied to a form of political conservatism and to a dangerous romanticism—and to some extent this has also colored perceptions of technological pessimism, especially within European thought, more broadly.

Although it can indeed be situated within this larger tradition of technological pessimism, and it is important that it be so situated, Heidegger's critique of technology is especially notable for the particular manner in which it proceeds. Heidegger is explicit in connecting modernity with certain modes of spatiality and spatialization—perhaps the only other thinker who makes a similar connection is Virilio, who emphasizes the character of technological modernity in its relation to speed and acceleration (cf. Virilio 1977), but in Virilio's case the connection to space and spatiality is much less perspicuously

worked out. According to Heidegger, modernity is characterized, above all else, by the dominance of the spatial—and not only that, but by the dominance of a particular mode of the spatial, namely, space as quantifiable extension which, as quantifiable, has no intrinsic limit, and that possesses a uniform structure describable in mathematical principles. The paradigmatic model of the spatial, in this account, is indeed the grid, which, in principle, can be extended infinitely, and which is familiar in the form of many modern city plans. In modernity, even time is understood in such spatialized terms typically represented as a succession of moments and appearing as another axis within the multiple dimensionality of space. Here, the world is identical with space, and space identical with the world. One of the reasons the critique of technology that is central to the later philosophy of Heidegger is so significant is that it is one of the few attempts to address technological modernity in a way that is indeed attuned to this phenomenon of spatialization.

Space is very much a modern notion. Indeed, if the origins of modernity are to be found in the rise of modern science, then it is with the rise of space as a *sui generis* concept that both science and modernity begin. One might argue that the key work here is not so much Galileo or Newton, both of whom are often cited as the founding figures in the modern thinking of space (Heidegger cites them both), but Giordano Bruno whose *On the Infinite, the Universe and Worlds*, from 1584, proposes the idea of a genuinely infinite space in which is to be found an infinity of worlds also (cf. Bruno 2014). The idea of space at issue here is thus tied to the idea of extension and also to the idea of such extension as being both uniform (or at least subject to uniform laws) and as lacking any intrinsic limit (there is thus nothing in the concept of space that refers us to anything beyond or outside space). Central to this idea of space is that it has no boundaries that belong essentially to it as space. The notion of space at issue here is one that is tied to number, to measurability and so to quantity.

Once again, one can see how this notion of space is so much a part of modern science, since modern science is also tied to number and to quantity.

¹ On Heidegger's understanding of the connection between the notion of space and modernity see my discussion in: Malpas 2012, 97–112.

Indeed, although the relation is not always explicitly recognized, number can itself be understood as essentially spatial—a point evident from the history of science, but also confirmed by psychology (which suggests that both the developmental origins and the representational format of numerical information are spatial in character; cf. De Hevia et al. 2012, 466). Number, like space, also has no intrinsic boundary, and here one can see how even the field theory of space may be said to be continuous with the thinking of space that is tied to extension, measurability, uniformity, and lack of intrinsic limit.

Given the fundamental nature of space in modern thought, it should be no surprise to find that in modernity time tends to be tied to space, even reduced to space. This is not only true of physical theory, but is a feature of the organization of the modern world more broadly. The modern tendency towards measurability and quantity means that time is subject to number, and in being so subject, it is, as we have already seen, also spatialized. Moreover, as time comes to be tied to notions of speed, acceleration, and efficiency, so the connection of time to space is reinforced. Time becomes a measure of movement in space, sometimes even a measure of space. Moreover, just as time is reduced to space, so place becomes, within this modern frame, equivalent to simple location. Place is thus a point or area in space—a "moment" in space—that is entirely derivative of space.

Since space carries with it no intrinsic idea of boundary or limit, so the reduction of time and place to space implies the loss of any idea of boundary or limit that belong to time or to place.

As it is indeed modern, so this modern notion of space is to be distinguished from older ways of thinking, and especially the modern notion of space is to be distinguished from the older notion of place. Indeed, if we retain a *sui generis* sense of place, a sense that is not reducible to space, then it is to this older notion of place that we must turn. Here place appears, in contrast to the modern idea of space, as essentially tied to bound or limit. This is especially clear in regard to the Greek term for place which has also remained as a near-synonym for place in English, namely, *topos*. As Aristotle characterizes it, *topos* is an inner bounding surface (cf. Aristotle 1957)—and this usage is echoed in "topography" as the study of the surface of the earth. The notion of place that appears here is a fundamental one. The idea of limit or boundary

is itself dependent on this idea of place, and so any thinking that draws on such notions, if it would do so in a way that does not reduce these notions to something arbitrary or conventional, must draw upon a notion of place also, whether explicitly or implicitly. Here, the limit or boundary appears, not as a mere line within space nor as simply restrictive, but rather as the constituting horizon that belongs to a place, and that allows things to appear within it—the boundary is productive much as the boundary of a square of piazza creates a space within it that allows things to happen, to take place. In this way, the boundary, and so the place, gives "room" to things—which is to say it gives space, and the space it gives is directly related or "appropriate" to that which appears.

It is important to note the contrast between this notion of place, and, associated with it, of boundary or limit, and the spatialized versions of these notions. Understood as modifications of space, place, boundary and limit tend to be arbitrary or conventional. They are essentially subjective projections onto the objectivity of space. Perhaps surprisingly, the idea of place as itself a projection is common across much of the contemporary literature in which place is supposedly thematized: place is understood as space plus "meaning" and thus place ceases to function as a *sui generis* concept in its own right. The broader tendency to understand the world in terms of just such "projections" or "posits" is one of the respects in which Heidegger views technological modernity as given over to subjectivism. In a world, in which space dominates, then there is no room for any notion of time or of place other than as modifications of space—other than as amenable to the numerical, the measurable, and the quantifiable; in such a world, what lies outside the objectivity of space and number can only be subjective and so conventional—or, one might say, "constructed". The difficulty, however, is that this leaves almost everything that pertains to the human as belonging to the realm of conventionality, and so as having no intrinsic foundation or limit, at the same time being completely subject to the supposed objectivity of the spatial and the numerical. Contemporary capitalism, conjoined with modern information systems, and embodied in the "market" (itself an informational as much as economic system), becomes the all-encompassing technological "machine" that allows spatialized human subjectivity to be worked out within

the realm of the objectively quantifiable and numerical. Moreover, there can be no easy defense against the encompassing reach of technological modernity, including its instantiation in contemporary capitalism, since technological modernity refuses the very idea of boundary or limit on which such a defense must depend. Consequently, attempts to argue against economistic models by reference to ethical notions, if they are to remain genuinely ethical rather than prudential or utilitarian, must rely on some notion of an absolute ethical limit to economic activity of a sort that are unrepresentable within the universalized discourse of contemporary economic thinking. Either ethics is already encompassed within the machine of the market, in which case it is essentially reducible to economics, or else it is nothing at all.

Although place is often treated as an exclusionary notion, so that to emphasize place is to emphasizes that which is here and apart from anything else, quite the opposite is actually the case. Places always implicate other places, both internally to the place, as places are nested within other places (a feature of place that underpins the connection between place and memory), and externally, as every place is nested within, as well as connected to, other places. However, what enables this topological or topographical inter-implication is exactly that which is often taken to underpin the exclusionary character of place, namely, the boundary or limit. Properly understood, the boundary is not that which cuts off, but rather that which connects at the same time as it also separates—which is why borders are such contested places. Indeed, here appears something about the way the topological underpins the very possibility of identity and difference—identity and difference are themselves topological. It is this aspect of place that is crucial to the character of place as that which founds appearance—every appearance is placed because the very happening of identity and differing that is appearance is always a happening of place.

The nature of the inter-implication, or as one may also say, the connectedness that is at the heart of the notion of place is nevertheless radically distinct from another kind of seeming "connectedness" that is associated with space. It is commonplace to talk of technological modernity as characterized by connectivity and "flow". Indeed, the development of technology can be understood in terms of an increasing connectivity that draws together the world. Technology is a system of convergent connectivity. This is true

both of technology itself and of that which technology encompasses. The development of technology is thus a development, in which one sees not just the development of successive improvements in particular devices, but rather improvements across whole ranges of devices and systems—and so one never encounters, except as technological remnants or repressions, advanced technologies that operate only with respect to a narrow range of devices or in narrowly circumscribed domains. Technologies are systematic, not discrete, and so the development of technology is always the development of a system that expands across the entirety of a society's activities. Connectivity, and increasing connectivity, is thus essential to the way technology constitutes itself. Moreover, this is apparent, not only in the self-formation of technology, but in the way it forms the world in which it operates. The technological ordering of things is one that draws things together into systems of interconnection that mirror the interconnection of technology.

This is true even of the simplest technologies, of course, so that one can argue for a continuity between the technology of the earliest hominids and our own digital technologies—as the famous sequence from the Stanley Kubrick film version of Arthur C. Clarke's 2001, in which a bone used as a weapon transforms into an orbiting missile platform (cf. 2001: A Space Odyssey), might suggest. But there is also a difference: as technology develops so the single tool or device tends increasingly to disappear into the larger technological system and this difference becomes almost a difference in kind rather than merely of degree—in the simplest technologies, the technological system is itself almost entirely captured either within the single tool or device, or within a small array of such tools or devices—often across a very small range of types or functions. Contemporary technology is characterized by tools and devices that are not only enormously varied, but that also encompass greater functional capacity, and often drawing different functions into a single instrument—witness the mobile phone, for instance, or the laptop.

At this point, the relation between technology and space comes back into the picture—and not only in virtue of my reference to Kubrick or Clarke—, but because of the nature of the connectivity that appears here. The mode of connectivity of the technological is not the same as the mode of interimplication that is associated with place, but rather the interconnectivity of

the extended homogenous field—what is so often talked about today as the space of boundless connectivity and flow. Significantly, Heidegger himself identifies this, if somewhat obliquely, in his own account of how technology operates: "[...] the energy concealed in nature is unlocked, what is unlocked is transformed, what is transformed is stored up, what is stored up is, in turn, distributed, and what is distributed is switched about ever anew." (Heidegger 1977, 16) Unlocking, transforming, storing, distributing, and switching about are, he says, ways of revealing. They are also ways of revealing that depend on the idea of an expansive and unbounded space within which such unlocking, transforming, storing, and distributing can proceed in a seamless and unobstructed fashion. The space of technology is a space of connectivity, but it is also therefore a space of uniform, unbounded, extendedness.

Moreover, the connectivity at issue here, precisely because it is spatial in this way, is also a mode of connectivity that proceeds through the effective elimination of differentiation—which also means, through the effective obscuration of any genuine appearing of things. The character of technological modernity as drawing everything into the same system of connectivity is a large part of what underlies the disquiet Heidegger famously expressed at the images of earth from space: here, even the earth itself appears as taken up into this same system of spatialized connection. Nothing stands outside the technological embrace here symbolized by the framing of the camera itself. One might say that the same idea is expressed in the dominant language of the Anthropocene, in which we seem to have already identified the earth as subject to the human.

Technology's delusions

It is commonplace to talk of the radical changes wrought by technological modernity, and there is a radicalism about it that must not be overlooked. Yet, the idea of radical change is itself part of the discourse by which technological modernity elaborates itself—it is one version of the progressivist story of modernity (though only part of that story—and the story actually consists of multiple stories that are not always compatible with one another). Technological modernity does not change—because it does itself depend upon—the more

basic ontology of the world and of human being. Nowhere is this clearer than in the operation of the connected digital technology which, for all its promises to free us from location, still works, and can only work, through our own embodied located engagement with it.

Heidegger famously comments that "the essence of technology is by no means anything technological" (Heidegger 1977, 4), and this is only partly true, because Heidegger wants to insist on a more basic characterization of technology in terms of what he calls *Gestell*—variously translated as "Enframing" or even "Positionality", both of which, inadequate as they are, nevertheless point to the way Heidegger understands technological modernity in terms of a form of encompassing spatialization. The essence of technological modernity cannot be understood in the terms that it already presents—in terms of its own understanding of itself *as technological*. This is a crucial point since it means that technological modernity misrepresents and misunderstands itself, and in doing so it obscures the boundaries within which it is itself inevitably constituted. It is thus that Heidegger also refers to technological modernity as an "obscuring cloud" that obscures its own character as obscuring.

The obscure and obscuring character of technological modernity stands as an ironic counterpoint to the idea of "enlightenment" that is so much at the heart of the project of modernity. But, there is more than just irony here. The inability of technological modernity to understand itself, and even to elaborate itself in ways that cover over the very boundaries and limits that make it what it is, means that technological modernity turns out to carry within itself an inevitable tendency to breakdown and failure that it cannot adequately represent, and to which it can only respond in technological terms (which means in ways that often exacerbate rather than ameliorate). It is thus that technological modernity, which promises the utopic, so often seems to end in one or another form of the dystopic. The supposed failure of neoliberal economics over the last forty years or so should, in this respect, be unsurprising—not only the fact of its failure, but the way that failure seems not to have hampered its continued operation. What this shows is that although technology justifies itself in instrumental terms, it is not itself instrumental its inner rationale is not based on instrumental success, but rather on its prior

commitment to its own universalizing imperative (an imperative which, in any case, over-rides any particular instantiation of it).

Technology's own self-representation, nevertheless, tends to be given in instrumentalist and functional terms—and this is as true of the technological system that is modern informationalist-capitalism as of any more particular technological device whether it be the mobile phone, the computer, or the drone based weapon systems that are now beginning to dominate modern warfare. Of course, these systems are extremely powerful, and their power derives from their spatialized/connected modes of operation, but their very encompassing nature, and the increasingly complex connectivity on which they depend, is also a source of fragility. Modern technological systems are prone to breakdown in a way that older, simple technologies were not, and protecting against their propensity to breakdown itself requires the development of further technological systems that have this as their primary aim (it is thus that many modern technologies become technologies whose main aim is the prevention of technological failure). Paul Virilio argues that technology itself arises in a way that is intimately tied to its own breakdown every technology brings with it the concept of its own failure, the concept of the "accident". Yet, this becomes something for technology to try to constantly overcome, even though the very attempt to do so does not eliminate, but rather shifts the character of the failure at issue.

Technology, ethics, and the human

Technological modernity's own difficulty in grasping its own limit, its own breakdown, its own failure, is not merely indicative of an instrumental or prudential problem for technology, but rather shows something much deeper. What is at issue here, is technology's own tendency to obscure the very appearing of things as the things they are—which means the obscuring of the bounds within which things appear, the obscuring of the place that belongs to their appearing as things.

Without being able to go into the details of the argument here, I would suggest that fundamental concept in any understanding of the ethical is, indeed, that of the constituting limit, the boundary, or horizon, which allows

anything to appear as what it is. Of course, this conception of the ethical goes completely against the conception that is consonant with modernity in which the ethical is precisely that which transcends limit, which is abstracted from place, and which is most obviously expressed in the idea of utilitarian ethics or perhaps in the idea of risk. But ethics begins with the recognition of that which appears and demands our attention as a focus for ethical concern. Such ethical appearing does not occur in the leveled out space of technology; it does not occur in the calculation of benefit and risk; it occurs only in the simple presencing of self, of others, and of world. The ethical relation arises only within the space opened up in the place in which we find ourselves and others—a place that is always bounded and yet open. Perhaps nowhere is this clearer, as the French philosopher Emmanuel Levinas suggests, than in the relation of encountering another human face (cf. Levinas 1969).

It is this, the locatedness of our very being in the placed encounter, and in place itself, that modern technology obscures and effaces. The loss at issue here is not the loss of something that has merely constrained us, but rather of that which makes us what we are. The challenge is to find a way to respond to our present situation, the situation of a globalized, technological modernity, that enables us to regain a sense of that sense of limit, of place, and also of self. Perhaps that can only be done by returning to a reassertion of the fundamental human values that underpin lives—values that are not given in the form of measures or even principles, but rather in a recognition of the demands that our own place makes upon us.

Bibliography | Bibliografija

2001: A Space Odyssey. 1969. Dir. by Stanley Kubrick. Screenplay by Stanley Kubrick and Arthur C. Clarke. MGM.

Aristotle. 1957. *Physics. Volume I: Bks. 1-4*. Trans. by P. H. Wicksteed and F. M. Cornford. Loeb Classical Library 228. Cambridge, MA: Harvard University Press.

Bruno, Giordano. 2014. *On the Infinite, the Universe and the Worlds: Five Cosmological Dialogues*. Trans. by Scott Gosnell. Port Townsend, WA: Huginn, Muninn and Co, 2014 (first published 1584).

De Hevia, Maria Dolores, Luisa Girelli, and Viola Macchi Cassia. 2012. "Minds without Language Represent Number through Space: Origins of the Mental Number Line". *Frontiers in Psychology* 3 (2012): 466.

Heidegger, Martin. 1977. "The Question Concerning Technology". In Martin Heidegger, *The Question Concerning Technology, and Other Essays*, trans. by William Lovitt, 3–35. New York: Harper & Row (first published 1954).

Levinas, Emmanuel. 1969. *Totality and Infinity*. Trans. by Alphonso Lingis. Pittsburgh: Duquesne University Press (first published 1961).

Malpas, Jeff. 2012. *Heidegger and the Thinking of Place: Explorations in the Topology of Being*. Cambridge, Mass.: MIT Press.

Rousseau, Jean-Jacques. 1751. The Discourse Which Carried the Praemium at the Academy of Dijon in MDCCL. On this Question, Proposed by the said Academy, whether the Re-establishment of Arts and Sciences has Contributed to the Refining of Manners. London: W. Owen (first published in French 1750).

Virilio, Paul. 1977. *Speed and Politics: An Essay on Dromology*. Trans. by M. Polizotti. New York: Semiotext(e).