

The Virtue of Sensibility

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The work of Michel Serres reveals a profound concern with the relation of human life to nature and the challenges facing technological society in the twenty first century. Pollution and the degradation of natural resources are only a part of it. Serres reminds us that we can no longer expect the natural world to soak up the consequences of human action without discernible, and in many cases dangerous, repercussions – climate change being the most obvious and most urgent example. As society becomes coextensive with the Earth, so together they behave increasingly like a closed system in which cause determines effect and all our actions leave a lasting mark (Serres 1995: 42). Might the predictability this involves at least enhance the prospects of intervening to limit the damage caused by the reckless short-termism that characterises much human activity, most especially in the economic sphere? Serres argues that this is not so. On the contrary, he argues that our entry into a deterministic closed system robs us of the resources we need in order to make any significant change; resources that Serres associates with the capacity for invention in making sense of the world, but also with restraint. The challenge that Serres identifies is first of all that of striking a new contract with nature in order that society and nature not be considered essentially separate domains (Serres 1995: 38). However, his proposal to revise the familiar conception of the social contract is only a part of the story. For Serres, a contract is not primarily a legal artefact at all, but an alliance or conjunction; that is, a form of coexistence born out of a material exchange (Serres 1995: 39; 2000a: 126, 128). Throughout his writing Serres reflects on the material world, elaborating an ontology of flows, communication, exchange, noise, and information in which order and disorder increase and decline in turn, and locally, without being subject to an overarching law. For Serres, this is fundamentally about what it means to exist, and above all what it means to be alive; as such it is a meditation on how we live, and

even on how we might live well. What Serres explores, tentatively and often indirectly, is therefore less a new approach to contract theory in the usual sense than a virtue ethics; or it is both, a virtue ethics being the condition for a return to the idea of contract. Traditional forms of virtue ethics pertain to our rational faculties and the management of emotion. The conception of virtue that Serres sets out is distinctive in that it is planted in sensibility, where the energies and codes of the material world are translated into meaning and language. Such a conception of virtue may support wider cultural and political responses to the challenges presented by technological society, but it is on the idea of the virtue of sensibility itself that I will focus in this paper.

Before turning to Serres, however, I shall outline Georges Canguilhem's conception of health, and his approach to the relation between the living being and its milieu. I refer to it here because Canguilhem's account of health opens a perspective from which the link between sensibility and virtue in Serres is particularly distinct. As such, the account of Canguilhem I present here is intended only to provide a helpful way to approach what Serres has to say on sensibility. Although I will express a reservation with the way Canguilhem understands the relation between the living being and its milieu, this should not be read as a critical reflection on what is an enormously rich body of work.

In *The Normal and the Pathological*, Canguilhem confronts what had been the established view that disease and abnormality are deviations from a norm, which is taken to be fixed, and that the task of medical science is to restore the living being to that norm (Canguilhem 1989). Against this view, Canguilhem argued that there is no single 'normal' condition for any living being that could stand as the ideal of its health. Instead, each living being exists for the most part in a 'normal' condition that is quite precise at any given time, defined by a series of norms relating to its physiology, but continually changing. Even disease is a norm, albeit an inferior one. Most of the time, the living being exists in a dynamic state of near equilibrium, in which the norms indicating its 'steady state' are continually changing –

sometimes gradually (as with age), and sometimes more rapidly (as in the case of serious illness). Normality is therefore a condition that has continually to be regained; and crucially, as the living being achieves this, it arrives at a new equilibrium rather than restoring the old. In this way, 'By the sole fact of its existence, the organism resolves on its own a kind of contradiction, the contradiction between stability and modification' (Canguilhem 2012: 72).

Health is characterised not by normality, but by the capacity to maintain balance in spite of being knocked around by changes to one's internal condition, the environment, and the balance between them: 'What characterizes health is the possibility of transcending the norm, which defines the momentary normal, the possibility of tolerating infractions to the habitual norm and instituting new norms in new situations' (Canguilhem 1989: 196–7). To be in good health, adds Canguilhem, 'means being able to fall sick and recover, it is a biological luxury' (Canguilhem 1989: 198–9). One might think that the capacity of an individual to do this or not is simply a matter of objective fact, and to some extent this is indeed the case, but Canguilhem insists that to be in good health is to feel in good health, to feel 'more than normal,' and as such capable of creating and following new norms of life (Canguilhem 1989: 200). This capacity is what Canguilhem calls 'normativity' and it involves the relation a living being has with its milieu.

Canguilhem explains that the concept of the 'milieu' first arose in Newtonian mechanics, and was appropriated by French mechanistic scientists to name the medium between two bodies by virtue of which an effect is propagated from one to another. This interpretation of 'milieu' later settled into the idea of what Canguilhem calls 'a pure system of relations' (Canguilhem 2008, 103) that lent itself to scientific analysis. In this way, 'the milieu becomes a universal instrument for the dissolution of individualised organic syntheses into the anonymity of universal elements and movements' (Canguilhem 2008: 103). Only later, when considering a body in isolation, did it begin to signify a condition that 'surrounds' a given body, and at the same time began to take on a more absolute sense. The concept was introduced

into biology by Jean-Baptiste Lamarck, who maintained that the milieu acts not directly on the organism, but on its needs, and that the living being may then react to the provocation of the milieu by modifying its needs, or its means of fulfilling them (Canguilhem 2008: 191). This idea remains central to Canguilhem's understanding of the milieu and its relation to the living body, although he is critical of the way that for Lamarck life exists in a milieu that is entirely indifferent towards it. Canguilhem traces further episodes in the history of the concept of the milieu before referring to the work of Jakob Von Uexküll and Kurt Goldstein, who present an alternative to what had, in spite of Lamarck and in agreement with the physical sciences, become the prevailing view that the milieu exerts an influence directly on the living being. In their view, and Canguilhem's, it is, on the contrary, 'the living that makes its milieu for itself' (Canguilhem 2008: 111).

Von Uexküll establishes a basis for this view with the concept of *Umwelt*, which Canguilhem describes as 'an ensemble of excitations, which have the value and signification of signals' (Canguilhem 2008: 111). But not all excitations are signals. For Von Uexküll, before an excitation in the *Umwelt* can act on a living being, it must first be noticed, and this presupposes the orientation and interest of the living being. So while the physical milieu supplies any number of excitations, the living being only retains a select few. The *Umwelt* is therefore 'a milieu centered in relation to the subject of vital forces in which the living essentially consists.' In this way, the relation between the living and the milieu 'establishes itself as a debate (*Auseinandersetzung*), to which the living brings its own proper norms of appreciating situations, both dominating the milieu and accommodating itself to it' (Canguilhem 2008: 113). The living being is treated here as an individual within a milieu, and as irreducible to the system of relations that make up that milieu. The milieu offers the living being certain ways to meet its needs, and the living being negotiates over the terms of this offer. It would be easy to assume that a healthy being will always try to dominate this negotiation in order to ensure that its terms are met, but this is not necessarily the case.

Canguilhem emphasises that 'a life which affirms itself against the milieu is a life already threatened' (Canguilhem 2008: 113). By contrast, 'A healthy life, a life confident in its existence, in its values, is a life of flexion, suppleness, almost softness' (Canguilhem 2008: 113). The play between domination and accommodation may therefore be a subtle one. However, it nonetheless implies a binary view in which the living being is either winning or losing. (I shall argue that Serres undoes this opposition and describes the living being, and human beings in particular, as existing in a more intimate and less conflictual relation to the material world.)

For Canguilhem, the milieu proper to the living being is the world as it is perceived. Referring to the human being in particular, he describes how action is oriented and regulated by values that 'pick out quality-bearing objects and situate them in relation to each other and to him. Thus the environment to which he is supposed to react is originally centered on him and by him' (Canguilhem 2008: 118). The living being perceives and orders things according to the values immanent in the interests and needs that provide an orientation towards the mass of available excitations, and these values guide the creation of the milieu. For example, I need shelter, so I perceive the world as a series of potential places to hide; or I need to drink, so the world is perceived in terms of watering holes, the distance between them, their relative safety. This is the selection by virtue of which the living being pays attention to some stimuli more than others. Canguilhem goes on to conclude the essay 'The Living and its Milieu' with the following words:

From this stems the insufficiency of any biology that, in complete submission to the spirit of the physico-chemical sciences, would seek to eliminate all consideration of sense from its domain. From the biological and psychological point of view, a sense is an appreciation of values in relation to a need. And for

the one who experiences and lives it, a need is an irreducible, and thereby absolute, system of reference.¹

For Canguilhem, needs are neither reducible to a physical system, nor signs of a more fundamental condition or reality (as, for example, they would be for Nietzsche, for whom a need has to be deciphered to reveal the configuration of the will to power that speaks through it). A need is simply what it is and should not be subjected to an interpretation that does not take it seriously. It is the principle by which the living being orients itself, and in so doing creates sense and value. Yet although the need of a living being is an absolute, it is a negotiable absolute. Needs can be modified, or prioritised, and they can be met in various ways. Needs themselves, although irreducible, exist only in relation to the milieu, which provides the healthy body with ways to meet them that it can exploit, if it is able. However, the specificity of the needs of a living being means that it filters out or ignores most of the stimuli or excitations to which it is in fact exposed, selecting only those that help it to meet its needs (or are a threat). On this reading, the Earth is a source, not merely of nourishment and shelter, but, insofar as the living being picks out signals that enable it to meet its needs, also of sense and value. Sense and value are conditioned by the needs of the living being and the ways it devises to meet them. In turn, needs are a communication between the living being and the material world.

Canguilhem's focus on the health of the body leads him to adopt a perspective that regards limitations in the living being's ability to meet its needs as arising from two factors: first, a change to the state of the living being itself (accident, illness, ageing) that demands innovation in order for the being to remain healthy; second, a condition of the milieu that demands something of the living being, or constrains it in some significant way. Such limits are local and negotiable; for example, it is generally possible to arrange the milieu differently, to move to a place where conditions are more favourable, or simply to revise the need from

which the sense and value that shape the milieu initially spring. What Canguilhem does not consider is a situation in which the limits are non-negotiable; that is, where the scope for modifying an existing milieu is radically reduced, or where moving to a new location makes no difference.

In books such as *The Natural Contract*, *Rameaux*, *Biogea*, and *Times of Crisis*, Serres considers our experience of meeting just these kinds of global limits. The expansion of contemporary society across the Earth has led to a situation in which the local is no longer embedded within wider global limits. Technological change reaches all corners of the world and its effects bear on all life in return. Contemporary society can extend no further and 'has nothing left in reserve' (Serres 1995: 41). The scale of the Earth in comparison with human society is no longer so great that it can absorb the effects of our actions. As a consequence, the management of our collective needs in relation to the Earth is stressed close to breaking point. When all of nature is in some way part of the human condition, the consequences of our actions ripple further than we imagine. The effects of what we do are no longer felt 'elsewhere,' they impinge on everyone and this strangely unexpected recursion carries a terrible threat. Like Canguilhem, Serres writes that 'strength has reserves at its disposal' (Serres 1995: 41), by which, like Canguilhem, he means scope for innovation and ingenuity in meeting needs. Such innovation may require courage, imagination, intelligence, an ability to communicate and organise, and other qualities besides. But it will also require being able to see alternatives to the existing configuration of needs and the way we meet them; that is, the communication, however mediated, between our bodies and the material world must be changeable. But when society extends to the limits of the Earth and every recess is saturated with meaning and language (Serres 2008: 112) the reserves are filled and there is no place to which it is possible to withdraw in order, in Canguilhem's terms, to create a new sense in a new or remodelled milieu. When a global system becomes a single unit, it becomes weak and loses its capacity to adapt: 'A full and rigid totality ... can break from rigor or hardness' (Serres

1995: 41). The image exactly matches that of the unhealthy body described by Canguilhem, one unable to adapt and establish a new equilibrium. Now, for Serres, here in this sentence, the body in question is human society as a whole. But, like Plato, he entertains an analogy between society and the individual, and immediately adds: 'The more plural an individual becomes the better he lives: the same is true for societies, or for being in general' (Serres 1995: 41). In fact, this is less a statement of liberal principles than a reflection of Serres' view of the body and its role in the way we make sense of the material world.

Drawing on the analogy of sailors aboard ship, Serres describes how in such conditions the actions of each affect all, and there is nowhere to which one can retreat, no reserve. Any disorder amongst the crew risks shipwreck, and everyone's life depends on preserving what may be a fragile peace. When Plato appeals to the analogy of a ship to underline the necessity of good governance, it is through the command of reason exercised by the philosopher king that order is maintained (Plato: 488a-489b). Serres, no stranger to the sea himself, draws a different conclusion. There is, he writes, a single unwritten law for those aboard ship, 'a nonaggression pact among seagoers, who are at the mercy of their fragility' (Serres 1995: 40). The external threat from the elements ensures that peace is maintained within the limits of the ship itself by what Serres calls 'the divine courtesy that defines the sailor' (Serres 1995: 40). As there is no way to escape the continual proximity of others, with all the potential for discord it brings, the unwritten law of courtesy lends a little suppleness to help keep the peace: one leaves room for others. Serres likens this to the natural contract he is proposing to humanity as a whole (Serres 1995: 40). Exercised collectively, such courtesy would at least begin to keep the local and the global from coinciding, and at least begin to reveal resources where none were apparent. In this way, it would preserve a degree of the plurality necessary not just for survival, but for what Canguilhem calls health, and Serres associates with living well.

However, for Serres the conditions of living well are not simply equivalent to those of health for Canguilhem. Opposition to the reduction of the living being to a system of impersonal forces and relations leads Canguilhem to defend a form of vitalism, but Serres does not make this move. For him, too, the living being is irreducible to such a system of relations, but in the end so is the rest of the material world. What Canguilhem resists above all is the universal application of mechanism and the determinism that comes with it. But for Serres mechanism is less a distinct paradigm than a special case within a more diverse dynamic landscape. The law governed mechanism that gives rise to determinism is the physics of solids and of closed systems, which are for Serres, as an atomist, special cases of a more general physics of fluids and open systems (Serres 2000a: 69). So when society fills the Earth each human action has a precise effect on the Earth, and each effect bears in turn on human society and on the rest of life. Society is no longer a local form within a complex system on a different scale. With no reserves, the relation between society and the material world approaches the point where it is locked into a deterministic process of cause and effect. Mechanism appears as a limit case and imposes itself as the only viable way to understand our relation to the material world. Of course, although mechanism and the physics of closed systems have been dominant since at least the 17th century, human beings have continued to act as if the Earth were an infinite resource that could endlessly absorb the effects of our actions, and that would always be so much greater than society that it could be treated as an open system. Such a view is no longer possible, and the convergence of the local and the global extends the unforgiving law of cause and effect from the material world considered in isolation to the relation between the material world and society. Life begins to eliminate its own conditions. It is this fate that the law of courtesy applied aboard ship is intended to avert. But the analogy of the ship allows Serres to explore a further alternative as well, one represented by the helmsman.

In spite of the complexity of the weather and the sea all around, the crew of the ship, bound by the limits of the hull, operate in a rigorously closed system. By contrast, the helmsman is in the open and actively engages the surrounding elements. His will 'acts on the vessel, which acts on the obstacle, which acts on his will, in a series of circular interactions' (Serres 1995, 42). He governs through feedback loops, responding to contingent circumstances in a complex dynamic environment.² The expertise that this requires was once regarded as distinct from the ability to govern well and to live well with others, a view that received its clearest expression in Aristotle's distinction between the intellectual virtues *techne* and *phronesis* (Aristotle: 11401a-14b30). *Techne*, skill, underpinned instrumental or productive acts carried out in circumstances that one can more or less predict and control. *Phronesis*, practical wisdom, was the ability to act well in circumstances (ethical and political) that are contingent, complex, and often unpredictable. However, the distinction rests on a belief in nature as a fixed order (Aristotelian teleology or Newtonian mechanics) that we no longer take for granted. The natural world, we now realize, is a supremely complex dynamic process, and at least in this respect less distinct from social order than previously thought. Society is not a local and isolated phenomenon (Serres 1995: 43-44). As a consequence, politicians, he writes, can no longer afford to belong in the city alone as experts in purely human affairs, while leaving an understanding of nature to others. To confront the challenges facing us today, we all, and especially those who govern, need like the helmsman to be aware that our acts elicit a direct reaction from the Earth. Failure to do so will have a twofold effect: first, it will reinforce the distinction whereby society could in principle be governed well without regard for its relation to the material world; second, it will without our realising it bind us still more firmly to the paradigm of mechanism that is in fact merely a limiting case, and by doing so would conceal the very reserves needed first of all to survive and then to live well.

According to Serres, avoiding this calls for the kind of virtuosity required to act in a situation where the slightest mistake brings ruin, even death. Alongside that of the helmsman, he gives the examples of the mountaineer and the musician, which suggest an expertise, a *techne*. To chart a path up the face of a mountain requires skill, as does making music. Yet the emphasis Serres places on the contingency of circumstances, and the unpredictable nature of the consequences that follow from our actions suggests this is not simply the skill of the craftsman in the controlled environment of the workshop. In the same way as human society is not set apart from the material world, one can no longer distinguish sharply between the virtues of instrumental action and those of ethics: the distinction between *techne* and *phronesis* begins to break down. How, then, do the examples of the mountaineer and the musician sit alongside that of the helmsman using knowledge, experience, wit, and sense to hold a course in conditions that change moment by moment? How does the virtuosity Serres attributes to the mountaineer and the musician extend beyond the narrow expertise of a skill? To answer this question requires a consideration of sense, and in particular of the relation between sense and the living being. And this consideration leads to a conception of virtue linked to sensibility that involves a profound connection between human life and the material world.

As a Leibnizian, Serres regards thinking as a distillation of sensibility and sensibility as permeated by the multiplicity from which thinking arises; in the idiom of information theory, sensibility is close to the noise that precedes and surrounds the sense conveyed in language. And as an atomist, Serres treats the emergence of material order as the formation of a code; that is, atoms do not combine according to fixed pre-existing laws, but create code that shapes their combinations as they go along.³ Sense is an emergent feature of the material world to which we are exposed, even though we remain oblivious to much of the information exchanged by things and the matter within them (Serres 2000a: 123; 2003: 60-1). In *Biogea*, Serres writes 'The Biogea rustles [*bruit*]; it shouts on the nether side of our languages; without

them; below them; outside them; beneath these lines, before the meaning of what I am saying gushes forth' (Serres 2012: 42). And in *The Five Senses* he explores this priority of sense to language at length, tracing the contours of the noise and multiplicity that language translates into a settled order.

How, Serres asks, can we open ourselves to the given without speaking it? The world 'is filled with propositions' and 'no space is left unoccupied' (Serres 2008, 112). It is an old question, which Serres couches in terms of energy and information, the hard and the soft. Our bodies inhabit in the world of the hard, of energies that sting our eyes and tear our skin, whereas language is soft: we are not blown off our feet by words (Serres 2008: 113). The bridge between the hard forces that are pre-conceptual and the softness of their expression in language is sensibility . Across this bridge the hard and the soft form a 'mingled given' in which sense co-exists with its excess, the noise from which sense has yet to emerge. In fact, Serres states explicitly that our bodies perform this mingling and stand mid-way (Serres 2008: 115), exposed to the energies of the material world and translating them into sense. Such an idea is not in itself original, and is found today, for example, in cognitive science and empirical psychology. But while Serres acknowledges that the translation cannot be understood without science, and therefore without language, he also reminds us that the body itself lives and survives by virtue of it. Simply to describe the translation in scientific or philosophical terms is to avoid taking part in it. This might not matter, were it not that the challenge to society Serres describes has arisen from the saturation of the Earth by sense: we see, hear, touch, smell, and taste only what has already been converted into language, images, information. The transition from one to the other is not simple, and there may be no single turning point, no well defined threshold. In the pages that follow, Serres considers how the energies of the hard and the sense of the soft mingle. The world is a *mélange* of order and noise from which sense is made, but there are no hard and fast rules for how this is to happen, for how the

world is to be granted its own soft voice. One has to listen, not so much beyond language as through it.

We must write as close as possible to this moving, dense proliferation, to the full capacity of the senses which is opened up in this place and given to use by the sensible. By this I mean the sensible that is designated by the infinite capacity of sense.⁴

If sensibility is the passage from hard to soft, from the noise of the material world to the sense enshrined in language, Serres proposes that we edge back through language from well defined sense towards the noise and confusion that lies before it: an anamnesis that returns not to unity but to multiplicity, that does not leave sensibility behind so much as make its home there. A fascination with intermediary states and spaces has characterised Serres' work from the beginning and there is always, for Serres, a value attached to overcoming the risk involved in occupying such a state or space. As in Serres' example of the swimmer in mid-stream, an equal distance from either shore of the river, it is always a question of balance, of holding one's own against forces that threaten to carry one away (Serres 2000b: 4-5). More generally, it is a question of how order is sustained in an open system; that is, where equilibrium is dynamic, not static – homeorhesis, not homeostasis (Serres 2000a: 56). Perfect equilibrium is impossible, and there is always at least some element out of line, however minimal, as a result of which a system sets off on one course as opposed to another (Serres 2000a: 61; 1968b: 203). The tiniest change in the state of my organs requires my body to re-establish an equilibrium as best it can, as the energy received causes a change in its configuration or a new exchange of energy (Serres 1968b: 203). In the case of sense, the equilibrium is between the extremes of chaotic noise and an impoverished idiom in which the same thing is said repeatedly in the same way: a dogmatism of high walls and closed borders.

It is above all from Leibniz that Serres takes his lead, and in particular from Leibniz's account of tiny insensible perceptions (*petites perceptions*). In the 'Preface to the New Essays', Leibniz describes how 'at every moment there is an infinity of perceptions in us, but without apperception and without reflection' (Leibniz 1989: 295). In a well known example, Leibniz notes that when we hear the roar of the wave crashing on the shore, we in fact hear countless minute perceptions that we cannot sense individually. We are unconscious of them in isolation, as they are not strong enough to register, yet when grouped together we hear them. In the same way, Serres, too, treats sense as emerging through the integration of tiny perceptions. *The Five Senses* is a sustained plea for us partially to reverse this integration, to differentiate, and to lower the threshold at which we become conscious of the tiny perceptions that flood our senses. In this book as perhaps nowhere else, Serres urges us to be more attentive, to expose ourselves to a world that is consistently richer and more complex than the sense we habitually make of it. Quite apart from the pleasure to be gained by a heightened awareness of these perceptions that otherwise rise and fall beneath the threshold of our attention, such attentiveness is for Serres a condition for uncovering the reserves we need in order to make sense of the world in new ways, and in doing so to establish a new contract with nature.

To make his point, Serres contrasts the figure of Orpheus to that of Ulysses (usually called Odysseus in English language versions). Homer tells the story of Ulysses resisting the deadly appeal of the Sirens by stopping the ears of his crew with wax and having them tie him to the mast. If, as Serres suggests, the Sirens sing the given and the everyday world, Ulysses survives being drawn to his death by nullifying the senses (Serres 2008: 125). In this way, by other means, he anticipates the strategy that Leibniz would later employ as the pre-established harmony between monads.

Whether rowing or manoeuvring the vessel, the ship's sailor-engines do not tremble with desire, nor with fear, but carry out their orders, come what may, since they cannot hear them countermanded. Before reaching the vile straits, God-Ulysses has already dictated everything that will follow to his monad-sailors. Thus the helmsmen on our ships blindly follow the course dictated to them, not the route they can see before them; language, not the given; the orders given, not the world they perceive.⁵

The crew, cut off from their senses, rely on language alone, following the orders given in advance: 'The Siren-given vanishes' (Serres 2008: 125). Noise is eliminated. But with it all communication is also lost. Even language is silenced and consigned to the past; a meaning that must be remembered, but which cannot be elaborated or discussed: a command.⁶ In the story of the Argonauts, Orpheus, too, confronts the Sirens, but his approach is very different (Apollonius Rhodius 2008, Book IV, 885-921). He survives the pull of the Sirens by confronting the danger head on and resolving the chaotic noise into music. If Ulysses aims at the minimal, Orpheus aims at the maximal. He understands that language needs music and that music needs noise, which is 'its essential condition' (Serres 2008: 123). Perfect order without noise is redundancy and with redundancy nothing is communicated. Yet if noise is the condition of communication, it is also a threat. Successful communication requires balance, and this cannot be without a risk. As Serres writes, 'Whoever speaks is also singing beneath the words spoken, is beating out rhythm beneath the song, is diving into the background noise underneath the rhythm' (Serres 2008: 120).

Serres links this account of the Sirens to a re-telling of the story of Orpheus and Eurydice. Death, he writes, will transform each of us from a vibrant speaking body into a name, an epitaph: 'Death turns us into words, words turn us into dead people' (Serres 2008: 131). When Eurydice dies from a snake bite, the passage to the Underworld is then likened to the entombment of her body in language. As he descends into the underworld to retrieve her,

Orpheus too leaves the hardness of the physical world behind in favour of the softness of words. But to move in this direction is easy, Serres writes: 'merely head downhill, follow on the heels of the entropic processes of dying, towards disorder and fragmentation; go from things to representations; name, describe, reduce a thing to a set of words and phrases' (Serres 2008: 133). Philosophers are said to be particularly adept at this (Serres 2008: 130). What is difficult is to move in the opposite direction, to resist the urge to rush from sensibility to meaning, and to climb 'the vertical path towards life, creation, or incarnation' (Serres 2008: 133). This is what Orpheus attempts, as he sings Eurydice's name to bring her back to life. She begins to follow him, finding her voice and becoming flesh and blood again, but not even Orpheus can achieve this and Eurydice 'collapses back into her own shadow' (Serres 2008: 133).

The figure of Orpheus represents the link between the noise of the world and what we make of it. He is sensibility itself, between the material world and the sense enshrined in language. He is therefore all of us. Yet each of the stories Serres tells about him is the inverse of the other: confronting the Sirens, Orpheus moves from the noise of the world towards language, and in the story of Eurydice he moves from language towards noise. Thus Orpheus twice escapes a form of death by being creative. In the story of the Sirens, he avoids the threat of dispersion in the noise of the world by creating within sensibility what Serres calls a transcendental condition shared by music and language, one that reverberates through our conversations, our bodies, our society (Serres 2008: 123) (having escaped this dispersion, Orpheus is later dismembered by a gathering of Thracian women). One may simply call this 'order,' but here, as elsewhere, Serres emphasises its temporality: in making music, one establishes a rhythm, a tempo, a time. This is more than just a convenient metaphor for Serres. There can be no meaning without order, and for Serres time, rhythm, is order that has not settled into redundancy (Serres 1998: 117). To open language to music is therefore to keep sense-making close to its condition of possibility, where this condition itself is created

and recreated by attending to the noise of the material world.⁷ In the story of Eurydice, it is this attention that keeps Orpheus from a second death, this time in language.⁸ And in spite of his failure to bring Eurydice back to life, Orpheus is the example that Serres would have us follow.

To return now to the helmsman, the mountaineer, and the musician, their virtuosity consists in sensing more acutely and thereby having more options at their fingertips for how to achieve a more fully developed sense (the course, the sequence of moves or the path, the interpretation). The point is not to develop a more sophisticated interpretation of the data given, but actually to extend the scope of sensibility itself so that more is given before the intellectual exercise of interpretation begins. It is a proposal that depends on Serres' thoroughgoing materialism, which is reflected in his dissatisfaction with the concept of the milieu: 'I do not wish to call the place in which I live a medium (*milieu*), I prefer to say that things mingle with each other and that I am no exception to that, I mix with the world which mixes with me (Serres 2008, 80). This mixing, through the skin, the eye, the ear, is too varied to be reducible to the play between domination and accommodation that characterised the relation (the *Auseinandersetzung*) of the living being to its milieu in Canguilhem. For Serres, this relation is a continual process of exchange; more or less ordered, more or less present to consciousness.

Like Serres, Canguilhem rejects mechanism as a basis for understanding life. However, his affirmation of a vitalism that exists apart from or somehow alongside the mechanistic universe assumes precisely the possibility of separating the two. When the living being as Canguilhem describes it selects certain stimuli and orders them according to its needs to create its own milieu, it hollows out its own vital niche in what is otherwise a deterministic world. Serres, too, understands the importance of disturbing the convergence of the local and the global both to preserve and to create room for life, but for him this does not lead to vitalism. Instead, he proposes a materialism in which mechanism itself is simply a limiting

case, and then he moves to keep that limiting case from being imposed. It is perhaps because he sees the vitalism of the living being as at odds with the mechanism of the natural world in general, that Canguilhem describes the living being as in effect winning or losing the battle to define its own milieu.

Serres calls on us, through attention, to attune our senses and in effect to let them convey what our language cannot yet adequately express. In this way, we may discover recesses within the world that have not already been colonised by meaning. The convergence of society and the material world might then be checked; in place of a closed system, a multiplicity of local forms of order may re-emerge, each in communication with others.⁹ Without such multiplicity there is no life, writes Serres, and we owe life 'to all the gaps left by the other living things, the Earth, the atmosphere, the waters, and the flames that, in return, owe their existence to the marginal reserves that we leave them' (Serres 2000b: 119). The virtue of sensibility therefore lies in participating in the emergence of order from the noise of the world without deciding in advance the form that order will take, and in doing so to exercise restraint. Only then can we leave room for new sense and value to emerge through the communication of one thing with another, and our communication them. This is a condition for the new contract that Serres proposes we forge with nature, indeed it is in effect the contract itself. Such restraint is not a turning in on oneself, but rather an openness to the noise of the material world. And in the end, for Serres, the virtue of sensibility lies in being able to stand there, between noise and language, on the cusp of sense in the making.

It is worth noting that for Serres such a cultivation of sensibility does not entail a rejection of technology in favour of a life in some sense 'closer' to nature. He does not advocate a return to a better time. Rather, looking ahead, he encourages the cultivation of new possibilities as human life continues to evolve in and through its intimate relation to technology (Serres, 2001). Sensibility is a matter not just of the body, but of the augmented body. However, there is still work to be done to determine how technology that enhances our

sensibility as intended by Serres differs from that which too often reinforces the coincidence of the local and the global, and the exhaustion of the reserves on which life depends.

Notes

¹ Canguilhem 2008: 120.

² Serres notes that this structure is found in cybernetics (Serres 1995, 42). See also *Times of crisis* (Serres 2014, 28).

³ Serres describes this in his reading of Lucretius (Serres 2000a: 122-123). The idea of physical laws as emergent regularities is examined in depth by Lee Smolin and Roberto Maneira Unger,

⁴ Serres 2008: 118.

⁵ Serres 2008: 125.

⁶ As such, the language left over is similar to the written word cut off from the voice. Serres promotes the spoken word, and the written word that in its music still bears the traces of its animation by the voice.

⁷ 'Sometimes, from the chaotic tohubohu and fluctuations, at the edge of my 'consciousness,' from this background noise and its tiny signals, imperceptibly fine, the fragment of a timid melody may arise, unheard and coming to my hearing: ululation, lamentation, hymn, cantilena, ballad, melopoeia... It drags me from my tears or uplifts me with tenderness. I desperately strain my ears, inner and outer, to understand its birth' (Serres 2009: 48).

⁸ In the end, Orpheus twice escapes death only then to meet it twice. Having been torn apart by the Thracian women, he passes to the underworld and to death in language.

⁹ Moreover, the harmony he creates does not reduce the multiple to one. Rather, it is 'a way of encompassing everything' (Serres 2008: 138): all possible senses are held there (Serres 2008: 123). This recalls the way that as early as 1966 Serres described the emergence of form as dependent on the fusion of all possible times (Serres 1968a: 94).

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