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'The World Must be Romanticised ...': The (Environmental) Ethical Implications of Schelling's Organic Worldview

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ABSTRACT

This essay addresses the implications of German Idealism and Romanticism, and in particular the philosophy of Schelling as it is informed by Kant and Goethe, for contemporary environmental philosophy. Schelling's philosophy posits a nature imbued with freedom which gives rise to human beings, which means that any ethics, insofar as ethics is predicated upon freedom, will be an 'environmental ethic'. At the same time, Schelling's organismic view of nature is distinctive in positing a fundamental gap between nature and human beings. Without this absolute alterity, there could be no real ethical relationship between human beings and nature. I conclude by briefly gesturing toward Schelling's role in the development of an ethics of alterity (which I apply to environmental ethics) in continental philosophy through Heidegger, Derrida, and Levinas.

KEYWORDS

Kant, Goethe, Schelling, organism, purposiveness, metamorphosis, freedom, difference

Accounts like Carolyn Merchant's of the so-called 'death of nature' through the scientific revolution and the modern era often stop short with the eighteenth century, implying that the instrumental stance toward nature encouraged by mechanistic metaphysics both remained uncontested in its own time and continued relatively uninterrupted until the emergence of alternative scientific theories of nature in the twentieth century. Merchant's book *The Death of Nature* briefly alludes to the Romantic reaction toward the Enlightenment, but does not even mention the enormous contribution of Immanuel Kant's critical project, itself

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a part of Enlightenment philosophy, to that reaction. Kant's attempt, in the Critique of Judgment, to account for the purposiveness of nature aesthetically, that is, without resorting to a theory of final causes, led to the romantic and idealist transformation of the modern conception of nature from inert, law-governed matter in motion to the concept of nature as an ideal organism, a kind of living work of art. While Kant conceived of the technic of nature 'merely' aesthetically (in his words), as a subjective a priori principle of reflective judgment that results in the contingent agreement of nature's ability to produce things in terms of causes with our concepts and rules of art (Kant 1987, 391), German Romantic and Idealist accounts of nature imbued nature with its own living aesthetic systematic force. This paper will consider the implications of the romantic/idealist aesthetic philosophy of nature of F.W.J. Schelling, as well as of his philosophical predecessors Kant and Johann Wolfgang von Goethe, for the broader question as to what an idealist/romantic philosophy of nature in general and a philosophy of the world as organism in particular might contribute to contemporary environmental philosophy.

I will begin with a discussion of Kant. Rather than concentrating, as do most arguments as to Kant's relevance to contemporary questions of environmental ethics and philosophy, on Kant's moral philosophy, I will consider instead his account of the aesthetics and purposiveness of nature in the *Critique of Judgment*. Although Kant was a Newtonian in his physics, and thus posited that nature was the product of the play of mechanical forces, in the third *Critique* he argues for the absolute necessity for human inquiry into the question of nature's unity as a whole to take a systematic, organic form.

I will then look at Goethe's philosophy of nature as another significant influence on Schelling's organic philosophy of nature. Goethe transformed the conception of nature as a play of mechanical forces into an organismic alternation between the life-forces of polarity and intensification whose development is characterised by metamorphosis, expanding Kant's technic of nature to empirical science. Finally, I will examine Schelling's philosophy of nature, which posits the simultaneous emergence of nature and freedom. If freedom is a part of nature, and nature gives rise to human beings, then any ethics, insofar as ethics is predicated upon freedom, will be an 'environmental ethic'. At the same time, Schelling's organismic view of nature differs from that of Merchant and some ecofeminists, as well as that of the theorists of the 'Gaia hypothesis', in positing a fundamental gap between nature and human beings. Without this absolute alterity there could be no real ethical relationship between human beings and nature.

I. THE 'DEATH OF NATURE'

Carolyn Merchant, now one of the world's leading environmental historians, published her influential book The Death of Nature in 1980. The book was ground-breaking for feminist environmental ethics. Merchant's thesis that the sixteenth and seventeenth centuries replaced an organic, living cosmos with a dead, mechanistic world view, in which nature was conceptualised as passive and manipulable by humans, is no longer contentious. Neither is the further claim (at least partially hers) that the association of the feminine with nature perhaps facilitated both of these interpretations. But her analysis overlooks or gives short shrift to the continental side of Enlightenment and post-Enlightenment philosophy, in particular the philosophy of Kant and its enormous influence on philosophers and literary theorists' theorising of nature in the nineteenth century. The period receives only a brief mention in the introduction to The Death of Nature. The roots of modern environmentalism stretch back to this legacy of Enlightenment philosophy, which conceptualises nature according to a much more sophisticated 'organic' model than the older ones that Merchant presents. In Schelling's philosophy this organicism is intensified, radicalised and idealised to include the divine itself.

Merchant's historical account of the conceptualisation of the cosmos as organism uses the word 'organism' somewhat anachronistically, since the word only came into its current usage in the natural sciences in the eighteenth century.² Indeed, it was not until the late eighteenth and the nineteenth centuries that the paradigms of natural history were significantly transformed and the organism became the centre of focus, not only in biology, or the science of life, which was distinguished as a separate discipline at that time, but also in metaphysical conceptualisations of nature. Biology, and the basic unit of life as biology conceived it, the organism, became the focus of interest, as the methodology of natural science moved from categorisation and classification to the observation of the living body. The philosophy of nature of German Romanticism and Idealism both anticipates and reflects this shift in thought.³

Merchant outlines three versions of what she calls the organic theory of society, and by implication extends these to characterise a conceptualisation of nature. The first arose, by her account, in medieval society, and was modelled on the idea of society as a hierarchy following the structure of the human body (Merchant 1980, 69). The second was based on peasant experience and emphasised the primacy of community and the precedence of the whole over its parts (76). The third variation involved early seventeenth century revolutionary calls for organic utopias, often based in Christian millennial movements, which incited the overthrow of the established social order and its replacement by an egalitarian communal society (79). Merchant characterises the organic theory as 'the identification of nature, especially the earth, with a nurturing mother: a kindly beneficent female who provided for the needs of mankind in an ordered,

planned universe' (2). According to Merchant, the organic view of nature as a whole only came about in the Renaissance, with its common premise that 'all parts of the cosmos were connected and interrelated in a living unity' (103), and she attributes this to the era's return to Greeks' concepts of the cosmos as an intelligent being, that is, a carefully interconnected organised system, though not an organism per se (99f). Merchant nods to the Romantics, but explicitly mentions only the American transcendentalists such as Emerson and Thoreau, and characterises the organismic philosophy of the nineteenth century again as a mere return to earlier ideas of the cosmos as organism articulated in Greek antiquity, Neo-Platonism, and the Renaissance.

I will argue that the Romantic philosophy of nature, though it did of course take into account historical precedents, based its tenets in the philosophy of Kant and in the science of the day, and that it was not simply a nostalgic longing for a pre-industrial or pre-scientific day. Rather than being merely a reaction to the Enlightenment, as it is often characterised, Romantic philosophy of nature sought to extend natural scientific studies while rectifying some of their conceptual and methodological errors. Such a modification would lead to a more fertile way of interacting with the natural environment as an essential part of what it means to be human, not by simply conceiving of the natural world as encompassing, or capable of being in perfect harmony with, human desires, needs, and goals, but by seeing in the organism an analogue to human thought and divine spirit that is both independent of, and a condition for the possibility of, self-conscious spirit. In this simultaneous correspondence and essential difference the possibility of an ethical relation to nature can arise.

II. KANT'S AESTHETIC-PURPOSIVE PORTRAIT OF NATURE

In the first Introduction to the Critique of Judgment, Kant discusses the tension that arises between the attempt of the natural sciences to restrict description of the natural world to empirical observations, on the one hand, and the need that human cognition has to classify nature under laws and classes, and ultimately as a system, on the other. Kant here follows his conviction that he must move beyond the classificatory system of the Critique of Pure Reason, which describes the determinate structures of human cognition as the basis for finding regularity and predictability in nature. Such structures describe a formal pattern that explains the uniformity of human experience of the world of natural appearances, but do not lend a systematic wholeness to this pattern, a wholeness that alone will satisfy the human need to find a purposiveness in nature. Kant calls this demand for integrity and totality 'artificial' in that it is not derived from ordinary empirical cognition; he goes further to state that 'so far as we think of nature as making itself specific in terms of such a principle, we regard nature as art.' This necessity of conceiving nature as constituting a purposive whole is something that

judgment carries a priori within it. Kant calls the a priori principle that makes only a holistic explanation of nature satisfactory to the human mind a 'technic of nature', taking 'technic' from the Greek word, techne, for art.

Although Kant's articulation of the technic of nature refers to the systematisation of nature as a whole, or the unification of discrete mechanical laws of nature into a unified theory, Kant is also responding to the scientific doctrine of vital force of J. F. Blumenbach.⁴ In attempting to explain those instances of natural phenomena that could not be accounted for in terms of the laws of mechanical causality, Blumenbach posited the existence of vital forces that might also be called purposive, in that they have a systematic or unifying effect. The organism is the primary example of such a self-organising or self-unifying phenomenon. Whereas Blumenbach wanted to call these vital forces real, however, Kant objected to what he considered to be the illicit smuggling in of discredited final causes in the theory, and qualified such formative impulses, which he endorsed only as regulative principles. Such a diluted conception of purposiveness cannot lead to knowledge of nature, but merely provides a subjective principle for judgment. The technic of nature was a purely aesthetic phenomenon.

Kant goes on to claim, however, that some natural forms have what he calls an 'absolute purposiveness', by which he means that certain natural entities sensibly portray the very same systematic nature that nature as a whole, according to judgment's a priori principle of purposiveness, must have:

... their shape or inner structure is of such a character that we must, in our power of judgment, base their possibility on an idea. We must do so because purposiveness is a lawfulness that something contingent may have insofar as it is contingent. Insofar as nature's products are aggregates, nature proceeds *mechanically*, as mere nature; but insofar as its products are systems – e.g., crystal formations, various shapes of flowers, or the inner structure of plants and animals – nature proceeds technically, i.e. it proceeds also as art. The distinction between these two ways of judging natural beings is made merely by reflective judgment. (Kant 1987, 217'-218')⁵

Kant believed that these two types of aesthetic and regulative purposiveness, namely the natural organism and the scientific theory, had even more in common, that certain natural forms in fact best manifest the nature of the relationship of human cognition to nature by virtue of their simplicity, coherence, and systematicity. The human mind in its thinking about nature, Kant claimed, is specially attuned to and reflects forms of nature like the crystal, the plant, and the animal, and it is this affinity to these forms that causes human thinking to value and preserve nature as its kin. This observation was to have an enormous influence on the literature and philosophy of the nineteenth century in Germany, although they differed from Kant in one key respect. The absolute nature of the purposiveness of the organism, according to Kant, has its origin in the human apprehension of it, and not (at least not demonstrably) in itself, so that the way

things draw together into a whole, the mind's natural need to bring things together into a totality, is a result of thinking and language rather than something that inheres in nature itself. Insofar as humans cognise nature on the basis of cause and effect or dissection of its parts, Kant implies, natural explanations can be mechanical ones. As soon as one attempts to make any claims about the whole, however, Kant maintains the *absolute necessity* of human cognition proceeding *technically*, making of nature an art in which organisms viewed purposively both play a central part and provide the metaphor for systematicity itself. This is because the art that will organise our vision of nature as a whole succeeds most convincingly when it follows the figure of the organism, and least convincingly when it envisions nature as an aggregate or machine.

This so-called 'technic of nature' informs the notion of 'organism' or 'organised being' as the privileged individual that underlies Kant's discussion of teleology. These beings, Kant writes,

... first give objective reality to the concept of a *purpose* that is a purpose of *nature* rather than a practical one, and which hence give natural science the basis for a teleology, i.e., for judging its objects in terms of a special principle that otherwise we simply would not be justified in introducing into natural science (since we have no *a priori* insight whatever into the possibility of such a causality). (Kant 1987, 376)

The perception of organised beings as *self-organising*⁶ allow them to be referred to as natural purposes, according to Kant (Kant 1987, 374). Organisms are those beings whose parts are reciprocally the cause and effect of each other, each acting for the welfare of the whole. Natural purposes, likewise, form the basis for judging nature as a whole teleologically, as a system of purposes, each of which acts reciprocally for the good of all. This principle relies on the peculiarity of human understanding, namely, that it cannot rest satisfied with purely mechanical explanations, but must follow the demand of reason that 'subordinates such [natural] products ... to the causality in terms of purposes' (Kant 1987, 415). Thus for the human mind, perceiving nature as a whole as an organism can only be a product of art, not observation, and yet it is absolutely necessary to view nature in this way.

Through the notion of reflective judgment a door was thus opened onto the linkage of organic structure with systematicity, a link that for Kant could never be grounded in knowledge but which carried aesthetic and purposive weight. At the same time, the multiple forms of organisms that can be empirically observed also led to the opening of the possibility of more than one way of conceiving nature as organism. Rather than simply being a faithful mirror of nature, a philosophical conceptualisation of nature and humans' relationship to it might both reflect and transform nature. According to Schelling, nature can never be fully grasped, and its otherness to human being means that it may never be approached by human beings without being altered. Of course this does not mean

that there are not better and worse ways of interacting with and transforming nature. One of the ways in which nature might be so transformed, although it is not the aspect of nature that romantic and idealist philosophers most focused on, is the destruction of and disregard for nature through industry, technology, and development. Clearly, since such a transformation would ultimately render nature as Kant and his followers described it obsolete, it would be something to struggle against. Equally clearly, the technological (in Heidegger's sense of the word) conception of nature as a 'standing reserve' closes off the possibility of seeing in nature a reflection of the highest and unifying capacity of human reason that the analogy between organism and system suggests.

III. GOETHE'S SPIRITUALITY OF NATURE

The great debate in the eighteenth and nineteenth centuries over the way in which natural history was to be pursued, including the critique of the Cartesian mechanistic picture of the universe, involved more than a switching of metaphors for nature. As Goethe developed his studies of metamorphosis in meteorology, in insects, in animal skeletons, in plants, and in colour, he came to the conclusion that the principle of all organic nature was metamorphosis, a phenomenon that depends upon both form and force, that is empirically observable while still manifesting an ideal unity and systematicity. He was dissatisfied with the Kantian logical analysis of the a priori necessary conditions for the appearance of phenomena, and insisted on a more empirical approach to nature.

Goethe also considered the scientific theories of evolution and epigenesis to be inadequate to explain the origin of organic life. Epigenesis, as described in the work of Blumenbach (which Goethe reread after noticing a reference to it in Kant's Critique of Judgment),⁷ assumed the existence of a vis essentialis in organised bodies, a life force that has a generative power that precedes the material formation of organisms. Goethe understood 'force' and 'matter' to be concomitant phenomena, inseparable from each other. Blumenbach's theory places force prior to matter, thus anthropomorphising force, according to Goethe, into a kind of artist who brings form forth. Such a theory contains an implicit assumption of intentional purposiveness. Goethe equally objected to the theory of evolution because it credited environmental, and thus non-living factors, with the directive power of shaping organisms. According to Goethe, developed and complex organic life can arise neither solely because of what is contained in germinal form in primitive organisms nor as the result of contingent environmental influences.⁸

In the introduction to the illustrated edition of the *Metamorphosis of Plants*, Rudolf Steiner notes that Goethe and Charles Darwin, while starting from similar observations of plants, came up with opposing hypotheses about the origin of plant life. From the fact that all external distinguishing marks of plants are impermanent

and constantly changing, Darwin concluded that there was nothing constant in plant life. Goethe, on the contrary, adduced from the same observation that what is constant about plant life must lie deeper than appearances. Goethe's goal was to find this element common to all external variability, while Darwin sought the origins of variation in singular (and external) causes. Goethe opposed the contingency that characterises evolution, agreeing with Kant as to the aesthetic necessity of seeing in nature a systematically ordered whole (without either of them thereby reverting to the positing of individual final causes).

In researching the metamorphosis of plants Goethe also took a polemical stance against Carl Linnaeus, the predominant expert in the field up to that point, for reducing the study of plants to the cataloguing of their parts, for examining the plant not in its living intercourse with the other natural phenomena contiguous to it, but as a dead and dissected inventory of components. Kant had already shown that despite himself even Linnaeus tacitly assumed that nature was purposive by not questioning the possibility of the order and systematisability of natural phenomena. ¹⁰ For:

... it is clear that reflective judgment, by its nature, cannot undertake to classify all of nature in terms of its empirical variety unless it presupposes that nature itself makes its transcendental laws specific in terms of some principle. Now this principle can only be that of [nature's] appropriateness for the power of judgment itself, [i.e. for judgment's attempt] to find among things, [despite] their immense diversity in terms of [all the] possible empirical laws, sufficient kinship to be able to bring them under empirical concepts (classes), and bring these under more general laws (higher genera), and so arrive at an empirical system of nature (Kant 1987, 215').

Kant's critique both is devastating – because the claim of naturalists of the late eighteenth century was that they were doing purely empirical, that is, observational and descriptive, study, then using the power of their minds to select common characteristics from the diversity in order to classify the different genera and species – and it supports his own claim of the necessity of proceeding according to the assumption that nature is purposive. What Kant demonstrates is that the attempt to be objective and purely descriptive is informed by a host of assumptions about nature: that nature tends towards ever greater perfection, that everything in nature has a purpose, that kinds are unified and hierarchically structured, that all parts of nature fall into natural divisions under which individuals can be named. Naturalists' assumptions about natural order shaped their observations, rather than the other way around. Goethe took this critique one step further by changing the order in which natural phenomena are usually considered. Rather than assuming, for example, that plants fall into exactly the same categories as animals, but on a hierarchical lower level, he took as his point of departure the idea that the simplest and most universal of natural phenomena structure all natural forms.

Indeed, Goethe eventually came to reject even the possibility of any real natural individual, that is, of a natural entity that is clearly demarcated from all others that can be designated as a unity on its own:

No living thing is unitary in nature: every such thing is a plurality. Even the organism that appears to us as individual exists as a collection of independent living entities. Although alike in idea and predisposition, these entities, as they materialise, grow to become alike or similar, unlike or dissimilar. In part these entities are joined from the outset, in part they find their way together to form a union. They diverge and then seek each other again; everywhere and in every way they thus work to produce a chain of creation without end.¹¹

Goethe instead understood nature as a systematic unity of vital forces that mutually transform one another. The basis of natural growth is the process of formation rather than the substrate of form, so that every natural being is subject to constant metamorphosis. For the human being this metamorphosis takes place, at least as far as we can be aware of it, on a level that might be called spiritual or even magical, intimately involving both the mind and sensory perception. ¹² For Goethe too there was a fundamental sympathy between the order of nature and the order of self-consciousness, and it was because of this belief that he professed the accord of his own theories with those of Kant in the third *Critique*.

Goethe identified what he considered to be the 'two great driving forces of nature' as polarity (*Polarität*) and enhancement or intensification (*Steigerung*). Polarity, according to Goethe, is a property of nature insofar as it is thought of as 'natural', and intensification is a property of nature thought of as spiritual. He called polarity 'a state of constant attraction and repulsion' and intensification 'a state of ever-striving ascent'. These two forces affect mind and body equally: 'Since matter can never exist and act without spirit, nor spirit without matter, matter is also capable of undergoing intensification and spirit cannot be denied its attraction and repulsion'. 13 Following, among others, Leibniz, Lessing, Herder and Baader, Goethe regarded the phenomenon of magnetism as 'originary' in the same sense that the metamorphosis of plants is: neither phenomenon belongs strictly to either the realm of matter or that of spirit, neither fluctuation can be called purely qualitative or purely quantitative. Baader called the 'polarity of conjoining (Bindung) and liberating (Befreiung)' the 'key' to all nature.¹⁴ Goethe ultimately used the concept of polarity to explain metamorphosis in *The* Metamorphosis of Plants in terms of expansion and contraction, as well as to explain the theory of colour. It is important to remember that polarity signified, for all of these thinkers, more than simply a material phenomenon. Indeed, polarity was considered to be spiritual, both in the sense that it was significant for understanding human freedom and thinking, but also in that it was a universal explanatory principle for all natural phenomena.

Intensification, a continual process through a series of augmenting stages (Steigerung), together with polarity, characterises metamorphosis as Goethe

ELAINE P. MILLER

describes it. Intensification refers to a series of stages in the transformation of one shape or form into another such that the end form might not bear any traces of the beginning. Intensification occurs through polarity; for example, the plant metamorphoses into ever more specialised limbs or members through successive expansions and contractions. Whatever most transforms itself manifests the highest spirituality; parts of the plant that do not change through growth, such as the root, are considered least important.

Goethe carried out all such observations primarily empirically, which did not in any way vitiate his conviction that such a process is characteristic of all life, just as he expected that the process by which the principle of polarity or magnetism manifest themselves physically would prove equally true in human relations and in elemental chemistry. Goethe did not simply use his scientific studies to provide colourful metaphors for his literature, but believed that if a scientific principle was worthwhile, it would be relevant for all the forms that life takes.

IV. SCHELLING'S 'SPECULATIVE PHYSICS'

German Romanticism as an intellectual and artistic movement covers more areas of inquiry than perhaps any other philosophical school. When the German poet Novalis wrote that 'the world must be romanticised', he expressed the common conviction that diverse areas of intellectual and spiritual inquiry ought to be pursued in conjunction with each other. Eschewing the strict boundaries distinguishing art from science, philosophy from poetry, the romantics advocated an inquiry into nature that was simultaneously empirical and ideal, scientific and spiritual. They saw in Kant's Critique of Judgment a clear idea of how this unity might be achieved. Friedrich Schelling's philosophy combines romantic insights into the integration of diverse areas of human inquiry, Kant's critical philosophy and his insights into how the gap between the investigation into nature and into human freedom might be overcome, Goethe's emphasis on the grounding of all theoretical philosophy of nature in experience, the idealist perspective that developed from Fichte's reading of Kant but was transformed by both Schelling and Hegel to incorporate the sensual immediacy of nature, and the most radical scientific theories of his day.

In *Ideas for a Philosophy of Nature* Schelling makes a clear reference to Kant's technic of nature. He writes, echoing Kant, of the 'absolute purposiveness of nature' which 'we do not think arbitrarily but *necessarily*. We feel ourselves forced to relate every individual to such a purposiveness of the whole' (Schelling 1988, 41). Schelling explicitly wanted to go beyond Kant, however. Not only must our theories of nature reflect this unified conceptualisation of nature, but 'we proceed with complete confidence in the agreement of Nature with the maxims of our reflective reason' (ibid.). To show that nature in itself

is in fact systematic, and that this purposiveness is not simply limited to the form of our cognition, is Schelling's task in the *Ideas*. Calling his philosophy of nature a 'speculative physics', Schelling set out to show that nature is in fact idea, the realisation of concept or spirit. What Hegel accomplished for the moral world, customs, social life, politics, and history (and, less famously, for nature), Schelling first outlined for the physical world of nature. In nature, spirit should recognise itself.

Schelling calls philosophy 'a natural history of our mind' (Schelling 1988, 30). The system of nature is at the same time the system of our mind. Yet, he cautions, 'this system does not yet exist' (ibid.). This is for two reasons. One is that philosophy, whether of spirit or of nature, necessarily considers the system of ideas in its becoming rather than its being (ibid.), and thus can never be complete. And secondly, the natural sciences are faint of heart; they assume nature to be something external to us, something 'already prepared and accomplished' (Schelling 1867, 199) which is to be explained by discrete mechanical causes that do not lend themselves to systematisation. As Kant had shown, such disparate causes can only technically, through reflective judgment, be brought together in a purposive whole. Schelling called the natural research evidenced in Bacon's philosophy and Boyle's physics a regression from ancient Greek philosophy – which had at least provided a somewhat close relation between thought and nature – and a 'corruption' of the proper way of regarding nature (Schelling 1988, 52).

Nevertheless, it would be a mistake to call the views on nature of Schelling or even those of his more literary contemporaries, such as Hölderlin, the Schlegel brothers, or Novalis, anti-scientific. 15 Rather, they sought to reconceptualise nature in its relationship to human beings, and believed that science should reflect this more spiritual stance toward nature. Indeed, Schelling's turn toward the philosophy of nature from a more Fichtean preoccupation with the centrality of the 'I' and of freedom as the highest principle of all philosophy arose directly out of his reading and discussion of the chemical theories of Lavoisier, his attendance at Karl Friedrich Hindenburg's lectures on experimental physics in Leipzig, his reading of Carl Kielmeyer on organic powers and Alexander von Humboldt on electrophysiology, his research into Brown's theories on biology and medicine, and his enduring allegiance to the initiative of Kant's speculative scientific theories on force, life, and matter. 16

Johann Gottlieb Fichte was the primary philosophical influence on the Romantics in general. We can understand Schelling's relation to Kant best through his reading of Fichte's philosophy, which was the first to engage with Kant's philosophy in terms of the possibility of a system that would overcome the mechanistic perception of nature. Taking Kant as his point of departure, Fichte defined consciousness and being in terms of pure freedom and pure activity, and taught that it is merely a fallacy on the part of natural consciousness to believe that being is imposed upon by outside objects.¹⁷ He thus went farther than Kant in

denying not just the knowability but the very existence of things-in-themselves. Human beings' primary 'illusion' is the belief that an external non-ego imposes itself upon the 'I', according to Fichte. In rejecting such an illusion, he tried to show that consciousness imposes what is perceived to be the not-I upon itself. In its effort to become pure activity, the 'I' wages a constant battle against what is perceived to be the passivity of the not-I, which is really a passivity inherent within itself. However, the deduction of the ontological status of the 'I' and 'not-I' is not possible at a theoretical level, where it will always be confronted with the not-I as an apparently incontrovertible fact. Although Fichte insisted on the role of limitation (Einschränkung), resistance (Widerstand) and inhibition (Hemmung), especially in the later parts of the Science of Knowledge, he always made clear that this action originated in the absolute ego, and not in an external world. Only at the practical level of moral action, following Kant, did Fichte find the possibility of transcending the limitations of natural consciousness.

Schelling broke with Fichte on the nature of the absolute ego, of which, for Fichte, nature is nothing more than the pure negative, the illusory 'not-I.' In Ideas for a Philosophy of Nature Schelling had remained a Fichtean in stressing the power of mind or spirit (Fichte's absolute ego) to expand outward, only to be determined or restricted by the force of consciousness itself, or the not-I (rather than the in-itself of Kant, which lay outside of the mind). Schelling argued, however, as Fichte had not, that the limitation or restriction came from the absolute ego's striving to know itself. The natural world arose through the interaction of these two forces of the mind, that is, the creative ego and the constrictive formative force.¹⁹ In other words, Schelling eschewed both the mysterious unknowability of Kant's thing-in-itself and the purely negative - that is, 'objective' only in the sense of 'non-subjective' - nature of Fichte's 'not-I.' Schelling would expand this account to a cosmic and divine level in his later essay 'On Human Freedom.' In the 'Introduction' to his Outlines of a System of Natural Philosophy, Schelling states that his philosophy of nature or speculative physics regards nature qua natura naturans - as opposed to the 'mere product' or natura naturata that empirical science takes as its object - as a subject in its own right and the proper focus of all theory (Schelling 1867, 199).

Schelling's critique of Blumenbach, and even of Kant, by contrast, centred on the question of the kind of freedom accorded to nature conceived of as a subject. Schelling believed that the positing of a vital force was not only an illegitimate assumption that prevented the a priori explanation of the physical organisation of bodies, but also that it suggested that nature could act without restraint, that it was completely free. Although Schelling accorded nature qua subject a kind of freedom, it was a freedom within the bounds of law.²⁰ Only as such could the behaviour of nature be accounted for scientifically. In *On the World Soul* Schelling writes that 'Nature must neither act simply without law (as the defenders of the *Lebenskraft*, if they are consistent, must hold), nor act simply lawfully (as the chemical physiologists hold); rather, she must be

lawless in her lawfulness and lawful in her lawlessness.'²¹ Schelling suggests that this lawful freedom can only be the case if we take the organism to be the fundamental concept, not only in biology, but also in chemistry and in physics, thus also taking Goethe's side against Kant by moving beyond the logical analysis of the a priori conditions for the lawfulness of nature toward the real experience of the organism as a freely self-motivated natural entity.²² Schelling's insistence on the necessity of both a transcendental philosophy that understood nature as the visible organism of our understanding *and* a philosophy of nature that explains the ideal as arising from and explainable from the real sets him apart from a pure idealism.

Schelling's mature philosophy of nature presented nature as a play of forces, in a way that was deeply influenced by Kant and Goethe. Schelling calls nature 'original duplicity' in its character as both subject and object, and claimed that the opposite tendencies that pervade nature through magnetism, electricity, sexuality in nature, etc., manifest this duplicity (both mechanically and vitally) in nature's productivity (Schelling 1867, 201). Ultimately Schelling took Goethe's anti-Newtonian stance in insisting that nature is more than a given set of forces (actively transformed, according to Kant's account, through the categories, which themselves, however, are also static and given). In emphasising the developing or dynamic nature of being over its constitutedness, Schelling had to accept the incompleteness of any theory of nature.

The process of the conflict of forces in this expanded sense could be experienced through the senses both in the realm of the inorganic, through magnetism, electricity, and chemical processes, as well as in the organic realm, through sensibility, irritability, and metamorphosis. Richards writes that 'Schelling advanced upon Kant ... in his attempt not simply to draw the basic laws of physics from a priori principles but also the laws of chemistry, biology, and eventually medicine, all of which latter Kant specifically excluded from the realm of demonstrable, authentic science' (Richards 2002, 128). But the organism remained the centre of Schelling's focus for the same reason that Kant and Goethe privileged it: there seems to be a fundamental correspondence between the systematising power of the human (and divine) mind, and the organisation of nature, and this structure can be seen in the simplest of organised forms. In his 1799 'Introduction to the Outlines of a System of Natural Philosophy', Schelling makes the same connection to the regularity of nature's forms that Kant noted in the third Critique, tying this regularity to the productive intelligence manifest both in nature and in thinking. At the same time, however, he asserts that it is not enough to explain this congruence as due to the presence of an unconscious productivity in nature that is akin to the conscious, in effect reducing the real to the ideal. In addition, Schelling states, 'the Ideal must arise out of the Real, and admit of explanation from it' (Schelling 1867, 194). If it was the task of Transcendental Philosophy to subordinate the real to the ideal, it is the task of the philosophy of nature to explain the ideal by the real. Schelling saw both sciences as equally necessary (ibid.).

Schelling's dynamic account of nature resembles Goethe's metamorphosis in its emphasis on dynamic productivity rather than static form, but Schelling's philosophy is far more connected to the diverse scientific theories of his day. As Dieter Jähnig writes:

The mathematical-rationalistic character of eighteenth century science gives way to the dialectical-technical character of nineteenth century science. To confirm this shift one need only consider the historical and conceptual origins of contemporary biology, especially behaviorism and genetics, and the turn that chemistry and physics took in the 19th century. These fields no longer primarily question the structure of a given phenomenon, but ask instead how the phenomenon can be constructed; they ask, in effect, how it has come to be.²³

Schelling transformed Kant's philosophy of nature into a dynamic-spiritual concept. Where Kant talked of the play of attractive and repulsive forces and remained committed to a mechanical view of nature, and Goethe posited the fundamentality of the polarity of expansion and contraction, and opposed the mechanical order, Schelling speaks of expansion and return to a central point. Nature is not just dynamic, but it is inherently ordered as well. This is why Schelling called the world an organism, taking as his point of departure Kant's observation that the organism and the system share an analogous structure. Yet Schelling recognised the force of mechanical explanations, and did not eschew them altogether; rather, he conceived of the dynamic order as prior to and directive of the mechanical:

The former is directed towards the *inner machinery*, which is *not objectified in nature*, whereas the latter is concerned with the superficial aspect of nature, with what is *objective* and *external*.²⁴

If nature is inherently *not objectified*, then it is implicitly subjective, and this is indeed what Schelling states explicitly at other points. He accords nature a freedom of its own. At the same time, *qua* mechanical order, it is also objective, and is thus other than self-conscious spirit. In the organism, Schelling believed, one could observe the integration of both orders:

The absolute integration into one ... is expressed by *organism*, which is therefore once more the *in-itself* of the first two unities (though considered, not as synthesis, but as primary), and the perfect mirror-image of the absolute in Nature and for Nature. (Schelling 1988, 51).

The organism reflects the relationship of spirit and nature, and of the divine with nature, the 'embodiment of the infinite into the finite' (ibid.).

In On the World Soul and First Outline for a System of Nature Philosophy, Schelling argued more explicitly that the philosophy of nature could be an independent discipline, and thus that nature was more than the product of the absolute ego's self-reflection, adding weight to the claim that nature is free, since, if so, it must also have an independent nature. Although he remained committed to the idea that the properties of spirit or mind, namely, both its creative freedom and its limitation, were reflected or expressed in nature, he also accorded to nature an independence or freedom of its own. Sounding much like Kant in the third *Critique*, but expressing, rather than an aesthetic regulative ideal, what he conceived to be the actual nature of the relation between mind and nature, Schelling wrote:

Because there is in our spirit an infinite striving to organise itself, so in the outer world must a general tendency to organisation reveal itself. It is so. The world system is a kind of organisation, which has formed itself from a common centre. The powers of chemical matter are already beyond the boundaries of the merely mechanical. Even raw materials which separate out of a common medium crystallise out as regular figures.... From moss, in which the trace of organisation is hardly visible, to the noble form, which seems to have shed the chains of matter, there rules one and the same drive within, which strives to work according to one and the same Ideal of Purposefulness, strives to express *ad infinitum* one and the same Original Image [*Urbild*], the Pure Form of our Spirit.²⁵

At the same time, Schelling emphasised in the *Introduction* to the *First Outline for a System of Nature Philosophy* that the heart of natural science was the experiment, since in the experiment 'nature is compelled to act under certain definite conditions, which either do not exist in it at all or else exist only as modified by others' (Schelling 1867, 195). Only through such acts is a gaze into the internal construction of nature possible.

V. ETHICAL IMPLICATIONS

Thus, according to Schelling, nature is both subjective and free, to a certain extent, and objectively ordered. Nature remains an other to spirit. What is the significance of this otherness, this separation?²⁶ Arguments like those of Merchant in favour of an organic worldview tend to stress the *lack* of difference between humans and the natural world, the *continuity* between the natural and the human world order. How would an organic philosophy of nature that insists on nature's otherness lend itself to a positive environmental philosophy? Arguably, unless we see nature as both possessing spirit and fundamentally other than human being, we cannot enter into a real ethical relation with it. To only be able to respect that which is analogous to or has something in common with human functions and ends is inevitably (even if not intentionally) to enter into an instrumental relationship of exchange with it.

To accomplish this true ethical relationship with nature it would be necessary not only to shift from an exclusive focus on our own (human) wants, needs, and objectives, and to consider the needs and priorities of the (subject) nature, but also, and as a condition for this, to recognise that nature in its self-originating activity is perhaps the condition for the possibility of our own freedom, agency, and self-reflection. Thus an environmental ethics in the context of Schelling's philosophy would go beyond the dichotomy of asking whether an ethical relation to nature is mandated purely for the sake of human survival, or whether nature has intrinsic value and we should thus treat it as an entity with rights in and of itself. A Schellingian environmental ethics recognises that without nature the question of freedom, and thus of ethics, could not even arise. This generative relationship between nature and freedom reflects the fundamental alterity between nature and human beings

In his essay 'On Human Freedom' Schelling describes nature as effecting the self-revelation of the divine itself. God, according to Schelling in this essay, enters into a free relation of *love* with nature, and it is this relation that brings forth the possibility of the self-manifestation of the divine and of human freedom and ethics.

Schelling writes of the relationship between god and nature:

God Himself is linked to nature through voluntary (*freiwillige*) love, He does not need it, and yet does not want to be without it. For love is not when two beings need each other, but where each could be for themself ... and does not see it as a privation to be for themself, and yet does not wish to be, morally cannot be without the other. This is also the true relationship of God to nature – and it is not a *one-sided* relationship.²⁷

To say that nature can 'be for itself' and that it can enter into a voluntary relationship with god is to discern will and freedom in nature. In 'On Human Freedom' Schelling delineates the two sides of the divine – which must remain dual if god is to be self-revealed – as god's ground and existence, or the will of the ground and the will of love. Nature externalises god's eternally dark, contractive ground that 'though inseparable from [god], still is distinguished from [god]' (Schelling 1987, 237). Schelling also calls the ground 'the longing felt by the eternal one to give birth to itself ... [a] longing [which] is not the [eternal] one itself, but is eternal with it' (Schelling 1987, 238). Thus without nature human beings and human freedom, which manifest the divine on earth, would not exist.²⁸

Although expressing nature as the manifestation of the divine as it goes outside of itself in order ultimately to return to itself does not seem to differ significantly from Hegel's description of the Absolute, Schelling subverts Hegel in insisting not only that god's ground (nature) remains eternally separate from god, but also in according a kind of freedom to nature because of its provenance in the divine (Schelling 1987, 251–2). This freedom ensures Nature's status as

absolute Other to human beings, yet it also binds humans to Nature in a relationship of mutual dependence and love. Schelling writes that:

the will of love and the will of the ground are two different wills, each of which is for itself; but the will of love cannot oppose, nor can it annul (aufheben) the will of the ground, since it would then have to strive against itself. For the ground must act in order that love can be, and the ground must act independently of love, in order that love exist in reality. Were love to desire to crush the will of the ground, it would fight against itself, be at odds with itself, and would no longer be love. . . The will of love and the will of the ground thus become one precisely by being divided and by each acting for itself from the very beginning (Schelling 1987, 251).

The 'beginning' refers to what Schelling calls the 'unground' or original ground of all being, that which 'precedes all opposites' yet which 'cannot be designated as the identity of opposites, but only as their absolute indifference' (Schelling 1987, 276). The indifference of the principles prohibits their predication of the unground as opposites, which would immediately result in their collapsing into oneness, in the way that the conventional organic worldview that Merchant espouses seems to collapse human being and nature into one. Schelling calls this not merely a logical differentiation but 'a very real differentiation which was first rightly proven and fully comprehended from the highest standpoint' (Schelling 1987, 277). The separation of ground and existence in god, or the dual beginning that springs forth from this indifference, also allows for the possibility of personal existence, love, and human freedom, according to Schelling. Such a loving relationship would extend not only to the relationship between god and nature and god and human beings, but also and essentially to the relationship between human beings and nature, whose intimate interconnectedness can be seen in the analogous structure of organism and system, but whose essential difference precludes the possibility of merging them together in an undifferentiated and obscure notion of simple harmony.

When Schelling distinguishes between ground and existence it is partially an ethical call for nature to be understood as an other to humans, and at the same time a call for the continuity between ethics and nature. Thus the philosophy of nature could not be conceived of so much as an environmental ethics, that is, as a specialised branch of ethics or an applied ethics; rather, on this view, every ethics is an environmental ethics. In relation to existence, ground is that which one can never master, the other that cannot be incorporated into existence. Just as Schelling's system reflected the necessity of overcoming the Kantian distinction between appearance and thing-in-itself, an environmental ethics based on it would need to go beyond the dichotomy of the question of the intrinsic or pragmatic value of nature to the priority of respect for the absolute other.

Although the call of Merchant and other contemporary theorists for a return to an organic conceptualisation of the natural world is not intended to imply an instrumental view of environmental ethics (quite the contrary), it nevertheless lends itself to the idea of ethics as exchange. Conceptualising nature as a beneficent female spirit, in particular as a mother, emphasises our continuity with the natural. It hardly seems necessary to outline a theory of ethics with respect to how one should behave toward one's own mother, from whom one in return receives love, support and nurture. But the ethical issues that call for a theory really arise when the entity toward whom one is acting is one with whom one has very little, at least at first glance, in common. This would not entail a preference for the mechanistic view of the universe that Merchant criticises, for it too remains an ethics of the same. The mechanistic view of the universe is not one that presupposes an incommensurability between humans and nature. Despite its prevailing imagery of dead machines and its reduction of everything natural to matter in motion, the mechanistic view, too, can be understood in terms of exchange and return. One maintains a machine so that it may serve one well and remain reliable. But the either/or picture Merchant draws between the mechanistic and the organismic views of the universe remains a false and ultimately simplistic set of alternatives.

VI. CONCLUSION

Merchant shows the influence of a comprehensive natural worldview, be it metaphysical or hypothetical (based on a scientific theory), implicit or explicit, on popular views and practical ways of treating nature. Schelling's philosophy of nature conceived of the cosmos not just as a divinely created living being with soul and intelligence, modelled on and comprising all the other beings which are individually and generically its parts, in the manner of Plato and the *Timaeus*. For Schelling the products of the natural world provide us with the perception of the 'most complete fusion of the ideal with the Real' (Schelling 1867, 193), yet nature, though a subject like the divine and like the human being, remains eternally separate from them. This simultaneous fusion and difference allows for the dynamic productivity of nature, its infinite process, as well as the possibility of recognising it ethically.

While the 'organic' worldview articulated by Merchant and others is an attractive ideal, it remains undeveloped, at least in its historical articulation. If we are to be convinced, as Merchant wants us to be, by the possibility she suggests of a congruence of organic theories of community with contemporary scientific theories such as process physics, quantum mechanics, the theory of relativity, and chaos theory in mathematics, as well as the deep ecological movement, Schelling's organic philosophy of nature provides a much more complex and scientifically grounded historical paradigm for the parallel structures of mind, system, and nature. Conceiving nature as a subject, as the ground both for our own freedom and possibility of acting ethically and as the manifesta-

'THE WORLD MUST BE ROMANTICISED ...'

tion of spirit, rather than simply a natural environment from which we do not distinguish ourselves, might lead to the possibility of a true ethical relationship to the natural world.

NOTES

- ¹ Page references to Kant's *Critique of Judgment* refer to the *Akademie* edition page numbers in the margins of the Pluhar translation.
- ² The terms 'organic' and 'organism' in the sense of 'having an organised physical structure' as applied to a living being, came into usage only in the late eighteenth and early nineteenth centuries. Long after Aristotle, the usage of *organon* from *ergon*, or 'work', referred to the opposite of what would now come to mind with the word 'organic', namely, to a tool or instrument. In French anatomical studies of the fourteenth and fifteenth centuries, 'organic' was used to refer to the organs of the animal body in analogy with tools, in what was observed to be their mechanical functioning (Oxford English Dictionary). I discuss this point at greater length in my *The Vegetative Soul: From Philosophy of Nature to Subjectivity in the Feminine* (Albany: SUNY Press, 2002). For a much more extensive historical scholarly account, see also James L. Larson, *Interpreting Nature: The Science of Living Form from Linnaeus to Kant* (Baltimore: The Johns Hopkins University Press, 1994).
- ³ Schelling's contemporary and close intellectual cohort, the poet Friedrich Hölderlin, uses the term 'organic' (*organisch*) to designate human activity, the organised reflected principle of spirit and of art in the sense of the Greek *techne*. 'Organic' in Hölderlin's theoretical work indicates all human projection onto nature, all giving of form to what inherently cannot be captured in form, whereas 'aorgic' (*aorgisch*) refers to nature prior to any human representation of it.
- ⁴ Blumenbach was a German anatomist, physiologist, anthropologist, and zoologist who wrote *Über den Bildungstrieb* (*On the Formative Impulse*, 1781). See Kant 1987, 424. See also Richards (2002), 292f., and Larson (1979), for Kant's relationship to Blumenbach.
- ⁵ All references to the first, longer, introduction that Kant wrote for the third *Critique*, an introduction that is not included in many standard contemporary German editions of the *Critique of Judgment*, will be indicated by a prime after the page number. This introduction can be found in Volume 20 of the *Akademie* edition of Kant's works, and in English translation on pp. 385-441 of the Pluhar translation.
- ⁶ Kant defines organised beings as follows: 'an organised product of nature is one in which everything is a purpose and reciprocally also a means' (Kant 1987, 376).
- ⁷ Goethe's essay 'Bildungstrieb' ('The Formative Impulse', from On Morphology, 1820) (Goethe 1988, 35–6) criticises Blumenbach's theory of epigenesis.
- 8 'Bildungstrieb'/'The Formative Impulse' (Goethe 1988, 35-6).
- ⁹ See Rudolf Steiner, Einleitung in Goethes Naturwissenschaftliche Schrifen (excerpt) in Goethe 1992, 14.
- ¹⁰ For a detailed account of this argument, see 'Kant and the Critique of Teleology', in Larson 1994, 170-182.

- ¹¹'Die Absicht eingeleitet'/'The Purpose Set Forth', from On Morphology (Goethe 1988, 64).
- ¹² In 1812, after the publication of his *Theory of Colour*, Goethe wrote to Carl Windischmann, who had written a favourable review of the work: 'The incredible discoveries of chemistry have already given powerful expression to the element of magic in nature, so that we need not be afraid to approach her in a higher sense, stimulating and encouraging a dynamic, inspired view in all people. We have no need to concern ourselves with atomistic, materialistic, mechanistic approaches, for these ways of thought will never lack for supporters and friends' (Letter to Carl Windischmann (1812), quoted by Douglas Miller in the introduction to Goethe 1988, x-xi).
- ¹³ 'Erläuterung zu dem aphoristischen Aufsatz "Die Natur"'/'A Commentary on the Aphoristic Essay "Nature" (Goethe 1988, 6).
- ¹⁴ See Hoffmeister 1932, 28-9
- ¹⁵There are very few articles or books that address the relationship of romanticism or German Idealism to contemporary environmental philosophy. One book, *The Roots of Modern Environmentalism*, by David Pepper (1984), rather summarily though not unsympathetically, characterises all romantic philosophy as 'the antithesis of everything "scientific", as anti-rational and individualistic at its very core. Although Schelling is not always characterised as a romantic philosopher, his close connection to the Jena romantics and the frequent depiction of his work as romantic philosophy requires me to defend him against such a portrayal. Indeed, German romanticism and idealism took reason to be an integral part of nature, in a way that sets them apart from the dominant form of scientific enlightenment rationalism and makes them arguably more 'rational' than the philosophy of the scientific empiricists.
- ¹⁶ See Morgan (1990), Larson (1979), and Richards (2002), 139f.
- ¹⁷My account of Fichte's philosophy here is indebted to Jacques Taminiaux's article 'The Young Hölderlin' (Taminiaux 1993, 93–110).
- ¹⁸ See, for example, the Second Introduction to the *Wissenschaftslehre*, where Fichte engages in a lengthy polemic against other philosophers of his day for not recognising that finitude and restriction are attributes of the reflecting self, and not the result of the imposition of something external (Fichte 1970, 58f.).
- ¹⁹ See Richards (2002), 131-2.
- ²⁰ Although its approach is completely different and makes no reference to German Romanticism or Idealism, Eric Katz's *Nature as Subject* makes a related argument: 'I believe that it is a basic ethical principle that we must respect Nature as an ongoing subject of a history, a life-process, a developmental system' (Katz 1997, xvi). Katz goes on to sympathise with the pantheistic views of John Muir, the founder of the Sierra Club, who saw Nature as a manifestation of God. As we will see, it is Schelling's conception of nature as a manifestation of the divine that leads him to argue that it must possess freedom.
- ²¹ Schelling 1927-59, I: 595, cited in Richards 2002, 294
- ²² This remarkable synthesis of mechanistic and teleological, or of material and vital, conceptions of nature follows Kant's moral philosophy in a very interesting way. As commentator Robert J. Richards notes, although he does not draw the connection to Kant's moral philosophy, 'Nature would, therefore be rendered lawful in her activities; but because such law issued from her own deepest core, it was law freely imposed on itself' (Richards 2002, 294).

- ²³ Jähnig 1989, 225; my emphasis
- ²⁴ Schelling, Werke 3, 275, cited in Jähnig 1989, 226.
- ²⁵ Schelling, 'Allgemeine Uebersicht der neuesten philosophischen Litteratur', Philosophisches Journal, 6, cited in Morgan 1990, 31.
- ²⁶ Steven Vogel points out that there are two traditions within continental philosophy, in particular in the tradition of German Western Marxism known as Critical Theory, that have affected contemporary attitudes toward nature. The first argument, which derives from Hegel's philosophy, starts with the conviction that an active, socially situated subject 'constructs' the sphere that it inhabits. In emphasising the historically dynamic situation, it sees the 'natural' as referring to those aspects of the world whose social character has been hidden or forgotten. The second tradition arises out of Romanticism, and Schelling can be seen as one of its primary proponents. For this tradition, as Vogel describes it: "nature" and more generally that which is Other than the human or social take on a positive sign, and contemporary science and technology are criticised on completely different and even opposite grounds - not because they fail to acknowledge the human character of the world that surrounds us but rather because they violate that world's otherness, its specificity as an ontological realm beyond the human and not finally graspable by it' (Vogel 1996, 5). This tradition has had an influence on the philosophy of nature and the ethical theory of such thinkers as Theodor Adorno, Herbert Marcuse, Emmanuel Levinas, and Jacques Derrida. I do not, obviously, share Vogel's dismissive attitude toward this second tradition; in fact, one of the aims of this paper is to show that it, too, can have important environmental ethical implications.
- ²⁷F.W.J. Schelling, 1810 *Stuttgart Private Lectures*, from Schelling 1865–61, I/7, 453. Cited in Bowie 1993, 107.
- ²⁸ This is an intensified version of the pantheistic view that Katz ascribes to Muir, at least the muted version of which may be inferred from the vision of nature as a subject (Katz 1997, 233).

BIBLIOGRAPHY

- Bowie, Andrew. 1993. Schelling and Modern European Philosophy. London and New York: Routledge.
- Fichte, Johann Gottlieb. 1970. Science of Knowledge (Wissenschaftslehre) with First and Second Introductions. Edited and translated by Peter Heath and John Lachs. New York: Appleton-Century-Crofts.
- Goethe, Johann Wolfgang von. 1949. Gedenkenausgabe der Werke, Briefe und Gespräche, 24 Volumes. Edited by Ernst Beutler. Zürich: Goethestiftung für Kunst und Wissenschaft.
- Goethe, Johann Wolfgang von. 1992. *Die Metamorphose der Pflanzen*. Edited by Rudolph Steiner. Stuttgart: Verlag Freies Geistesleben.
- Goethe, Johann Wolfgang von. 1988. Scientific Studies. Edited and translated by Douglas Miller. New York: Suhrkamp Publishers.
- Hoffmeister, Johannes. 1932. Goethe und der Deutsche Idealismus. Leipzig: Verlag von Felix Meiner.

ELAINE P. MILLER

- Jähnig, Dieter. 'On Schelling's Philosophy of Nature.' Translated by Elizabeth Solbakken. *Idealistic Studies* 19:3 (Summer 1989): 222-30.
- Kant, Immanuel. 1987. *The Critique of Judgment* (1791). Translated by Werner S. Pluhar. Indianapolis: Hackett Publishing Company.
- Katz, Eric. 1997. Nature as Subject. Lanham, MD: Rowman & Littlefield.
- Larson, James L. 1994. Interpreting Nature: The Science of Living Form from Linnaeus to Kant. Baltimore: The Johns Hopkins University Press.
- Larson, James L.1979. 'Vital Forces: Regulative Principles or Constitutive Agents? A Strategy in German Physiology, 1786–1802.' *Isis* 70, 2 (June 1979): 235–49.
- Merchant, Carolyn. 1980. The Death of Nature: Women, Ecology, and the Scientific Revolution. New York: HarperCollins Publishers.
- Miller, Elaine P. 2002. The Vegetative Soul: From Philosophy of Nature to Subjectivity in the Feminine. Albany: State University of New York Press.
- Morgan, S.R. 1990. 'Schelling and the origins of his *Naturphilosophie*.' In *Romanticism and the Sciences*. Edited by Andrew Cunningham and Nicholas Jardine. Cambridge: Cambridge University Press
- Pepper, David. 1984. The Roots of Modern Environmentalism. London: Croom Helm.
- Richards, Robert J. 2002. *The Romantic Conception of Life*. Chicago: The University of Chicago Press.
- Schelling, F.W.J. 1988. *Ideas for a Philosophy of Nature*. Translated by Errol E. Harris and Peter Heath. Cambridge: Cambridge University Press.
- Schelling, F.W.J.1867. 'Introduction to the Outlines of a System of Natural Philosophy or On the Idea of Speculative Physics and the Internal Organization of a System of this Science.' Translated by Tom Davidson. *The Journal of Speculative Philosophy* 1, 4: 193–220.
- Schelling, F.W.J.1985. 'On the Relationship of Philosophy of Nature to Philosophy in General.' Translated by George di Giovanni and H.S. Harris. In *Between Kant and Hegel: Texts in the Development of Post-Kantian Idealism*. Albany: State University of New York Press.
- Schelling, F.W.J. 1987. 'Philosophical Investigations into the Essence of Human Freedom and Related Matters' (1809). Translated by Priscilla Hayden-Roy. In *Philosophy of German Idealism*. Edited by Ernst Behler, pp. 217–84.
- Schelling, F.W.J.1865-61. Sämtliche Werke. Edited by K.F.A.Schelling, I Abtheilung vols 1-10, II Abtheilung vols 1-4. Stuttgart: Cotta.
- Taminiaux, Jacques. 1993. *Poetics, Speculation, and Judgment*. Translated by Michael Gendre. Albany: State University of New York Press.
- Vogel, Steven. 1996. Against Nature: The Concept of Nature in Critical Theory. Albany: State University of New York Press.
- Vogel, Steven. 1998. 'Nature as Origin and Difference: On Environmental Philosophy and Continental Thought'. *Philosophy Today* 24: 169–81.
- Zimmerman, Michael E. 2004. 'What Can Continental Philosophy Contribute to Environmentalism?' Rethinking Nature: Essays in Environmental Philosophy. Bloomington: Indiana University Press.