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2 Earth's Poesy: Romantic Poetics, Natural Philosophy, and Biosemiotics

Abstract: This chapter undertakes an exploration of the pre-history of contemporary biosemiotics in Romantic ecopoetics, beginning with the ways in which Romantic natural philosophies, such as those of Schelling and Goethe, opened the way for a renewed appreciation of the subjective 'worlds' or *Umwelten*, as Jakob von Uexküll later termed them, along with the agency, communicative capacity, and, in some cases, ethical considerability of more-than-human beings. Secondly, I will examine the implications of this philosophical re-animation of materiality for the reconceptualization of human language, especially as deployed to poetic ends. Here, I turn to Friedrich Schlegel's (1967 [1800]) "Conversation on Poetry," in which human *poiesis*, the crafting of ideational worlds by means of words, is repositioned as an emergent property of the prior *autopoiesis* of natural becoming. Finally, I will indicate how this German proto-biosemiotics finds a literary counterpart in the ecosemiotics of English Romantic literature, focusing on John Clare's birds' nest poetry.

Key Terms: Biosemiotics, Romanticism, Goethe, Schelling, Clare

In 1800, the avant-garde journal of German Romantic literature and theory, *Athenäum* ("Athenaeum") serialized a work entitled *Gespräch über die Poesie* ("Conversation on Poesie") (Schlegel 1967, 184–190). Penned by one of the journal's founding editors, Friedrich Schlegel, this early document of modern literary theory was inspired by the lively discussions that Schlegel had been engaged in over the past few years with a group of friends who became known as the "Jena Romantics." Among them were his brother, the literary translator and cultural historian, August Wilhelm, and his wife Caroline (who hosted most of their gatherings), the writers Friedrich von Hardenberg (better known by his *nom de plume* Novalis) and Johann Ludwig Tieck, the philosopher, Friedrich Wilhelm Schelling, Friedrich's lover, Dorothea Veit, and (while Schlegel had been staying with him in Berlin in 1799) the theologian Friedrich Schleiermacher. The *Gespräch* stages an open-ended debate about literature, within which four of the participants present a series of longer disquisitions on various questions: Andrea's account of the "Epochs of Literature," Ludovico's "Talk on Mythology," Antonio's "Letter on the Novel" and Marcus's analysis of the style of Goethe's earlier and later works. From a contemporary ecocritical perspective, what is particularly striking about this debate is the way in which it is framed in the "Prologue." All human "poesy" or artistic making, Schlegel declares here, is dependent upon, and indeed grows out of, the prior "unformed and unconscious poesy" of the living earth, of which we are ourselves a "bloom." This primal poesy, which "stirs in the

plant and shines in the light, smiles in a child, gleams in the flower of youth, and glows in the loving bosom of women,” has always been humanity’s privileged “object and source of activity and joy” (Schlegel 1968, 54). The human capacity to “hear the music of the unceasing action” (*unendlichen Spielwerks*, my translation, Schlegel 1967, 285) of earthly becoming, and “to understand the beauty of [this] poem,” arises because we are ourselves “a part of the poet, a part of his creative spirit lives in us and never ceases to glow with secret force under the ashes of our self-induced unreason” (Schlegel 1968, 54). Schlegel’s re-configuration of human creativity and literary language as an outgrowth of ‘Earth’s poesy’ is informed by the new understandings of natural history, living systems, and human subjectivity that emerged during the Romantic period. In this chapter, I want to revisit German Romantic notions of the ‘language of nature’ and ‘natural language’ (*Natursprache*), along with the depiction of other-than-human viewpoints and voices by the English Romantic poet John Clare, from the perspective of contemporary research and reflection in the field of ‘biosemiotics.’

1 Biosemiotic Basics

Biosemiotics proceeds from the premise that “living nature,” as Jesper Hoffmeyer (2008, 4) puts it, is “essentially driven by, or actually consist[s] of, semiosis.” Among the diverse vehicles of communication that are perpetually composing, recomposing, decomposing and interconnecting the multifarious life-forms that constitute Earth’s biosphere are sound, scent, movement, pressure, texture, taste, and shape, as well as more elusive, but nonetheless powerfully efficacious phenomena, such as electrical fields and chemical effusions. From a biosemiotic perspective, the whole world – or rather all worlds, since each organism inhabits its own – is, as Peirce put it, “perfused with signs” (qtd. in Wheeler 2011, 271): from the level of the individual cell, which perforce interprets the genome that it contains in order to help build a body within a particular bio-physical environment, to that of the literary critic who, perchance, interprets a poem to help build understanding within a particular socio-cultural environment. This is a fast-growing field with diverse disciplinary manifestations, ramifications, and cross-fertilizations. Claus Emmeche’s succinct definition from 1992 nonetheless still holds good:

Biosemiotics proper deals with sign processes in nature in all dimensions, including 1) the emergence of semiosis in nature, which may coincide with or anticipate the emergence of living cells; 2) the natural history of signs; 3) the ‘horizontal’ aspect of semiosis in the ontogeny of organisms, in plant and animal communication, and in inner sign functions in the immune and nervous systems; and 4) the semiotics of cognition and language. (Hoffmeyer 2008, 4)

Biosemiotics proper, as Hoffmeyer observes, was invented independently several times over in the latter part of the twentieth century. Hoffmeyer himself is a biochemist and he recounts how he and his then doctoral student Claus Emmeche arrived at their own version of the 'semiotics of nature' at the University of Copenhagen in the late 1980s. Meanwhile, in Estonia, a series of scholarly exchanges between Russian and Estonian biologists and linguists that began with a conference in Tartu in 1978, led Kalevi Kull to develop an expanded understanding of the 'semiosphere,' a term first framed by Russian Formalist Yuri Lotman by analogy with geologist and biogeographer V. I. Vernadsky's 'biosphere' concept from 1926: Kull's breakthrough was to realize that the biosphere was in itself a richly polylogic semiosphere. Hoffmeyer also acknowledges that Gregory Bateson, who was a major inspiration for his own work, developed a similarly semiotic understanding of living systems. As Louise Westling shows in *The Logos of the Living World*, Maurice Merleau-Ponty was heading that way too in his late lectures on Nature. It is widely accepted, however, that the preeminent figure who "had the broadminded intellect and indefatigable energy to assemble all the threads that would serve as the foundation for the modern biosemiotic project" (Hoffmeyer 2008, 364) was the Hungarian-born American linguist, Thomas Sebeok (1920–2001), to whom Hoffmeyer's authoritative introduction to the field is dedicated. The two main threads out of which Sebeok wove his synthesis were the 'semeiotic' philosophy of American Pragmatist Charles Sanders Peirce (1839–1914) and the 'Umwelt' theory of German-Estonian biologist Jakob von Uexküll (1864–1944), which he came to explore with Jakob's grandson, the medical researcher Thure von Uexküll. Sebeok was fascinated by non-human animal and human-animal communication, and in Peirce he found a theory of sign relations, which was not restricted to human verbal communication (unlike the semiology of Ferdinand Saussure that was taken up so enthusiastically in francophone structuralism and post-structuralism from the 1970s). In order to advance the theory of 'zoosemiotics' that he had already begun to postulate in the early 1960s, Sebeok needed to be able to account for the process whereby animals come to translate corporeal sensations into meaningful perceptions. And it was in the revised second edition of Jakob von Uexküll's *Theoretische Biologie* (*Theoretical Biology*, 1928), which he read in the original German in 1978 (having perused and dismissed a poor English translation of the first edition thirty years earlier) that he found the key: namely, in his refashioning of the existing German term *Umwelt* (environment) to designate a species-specific and more-or-less individually nuanced phenomenal world, a world, that is, composed of signs. As Hoffmeyer (2008, 32) observes, von Uexküll "was working very much within a nineteenth century Romantic intellectual culture that was still vibrant in Estonia, while the science of Charles Darwin's England was increasingly utilitarian, mechanistic and Malthusian." Among his most important influences, moreover, were F. W. J. von Schelling's *Naturphilosophie* and the developmental or 'epigenetic' biology of Goethe and Karl Ernst von Baer, among others (Kull 2001, 4).

Von Uexküll's research into the perceptual worlds of other-than-human animals revealed how every creature's *Umwelt* is borne out of the functionality of its particular bodily constitution and conditioned by its developmental stage and life experience: it is correlated with a mental model of reality, or *Innenwelt*, that determines whether and how any entity that enters an animal's physical environment might become a bearer of meaning within a species-specific world of signs (*Merkwelt*); one that it will be called upon to interpret wisely in order to interact with it appropriately (for example, as predator, prey, play-fellow, mate, or the source of some other kind of potential trouble, pleasure, or interest). The relationship between an organism and its environment is dynamic, being continuously renegotiated through what von Uexküll termed the "functional cycle" (*Funktionskreis*) of perception and action that "effectively 'couples' the ever-changing system that is the organism to the ever-changing system that is the world" (Favareau 2008, 32). While Sebeok and others have since extended this zoosemiotic line of inquiry, others have gone on to explore such weird and wonderful semiotic processes as those occurring within organisms ('endosemiosis'), among plants ('phytosemiosis'), and even in inanimate nature ('physiosemiosis'). Of particular relevance to this chapter is the nascent field of 'ecosemiotics' (Kull 1998), encompassing research into human communication with, and about, nature, as mediated through the sign systems of human culture, which might be considered part of the wider field of environmental (or 'ecocritical') literary and cultural studies.

Most biosemiotic research hitherto has been conducted by natural scientists. However, it has also begun to attract the attention of a growing number of researchers in the environmental humanities, as can be seen from Wendy Wheeler's contribution to this volume. In addition to restoring communicative agency to non-humans, biosemiotics significantly expands our understanding of human sign relations. As "whole creatures," as Wheeler has it, humans, in common with other animals, also participate in a host of corporeal communications that generally transpire below the level of consciousness. It is for this reason, as Peirce stressed, that we always know more than we think we know. Caught up, as we tend to be, in the world composed by the words that are forever running through our heads, passing out our mouths, into our ears, or being traced by our eyes or finger-tips, much of what we know viscerally, so to speak, does not make it into our field of awareness. Occasionally, though, some of the signs that our mindful bodies are perpetually decoding might be felt in the flesh, as in the approach of a threat, the source of which we have not yet identified; or intuited as a hunch, which could give rise to one of those creative insights that Peirce termed "abductions" (Wheeler 2011).

This is not to say that we would be better off without that world of words, though. On the contrary: biosemioticians view articulate human language as the most complex mode of communication that has evolved thus far on Earth. With growing complexity comes what Jesper Hoffmeyer (2008, 309; 2010) terms increasing "semiotic freedom," entailing heightened self-awareness, including the ability to recognize, as Immanuel Kant influentially enjoined us to do in his *Critique of Pure Reason* (*Kritik der Urteils-*

raft, 1781), that the world disclosed to us through our ideas, words, and the embodied experiences that they co-construct, does not necessarily correspond to the way things are “in themselves.” The geo-historically unprecedented degree of semiotic freedom that humans have acquired along their evolutionary journey has enabled the inter-generational creation, perpetuation and transformation of symbol-based communal cultures, which has in turn facilitated the emergence of greater social complexity and the augmentation and acceleration of communication across time and space through the development of new media (from writing to the internet), thus enabling the creation of new kinds of knowledge, along with enhanced technological capacities.

This growth in semiotic freedom is nonetheless a risky business. For one thing, it goes hand-in-hand with an ever-expanding margin of potential misunderstanding: while some organisms certainly deploy signs to deceive others (for example, by puffing up their fur or feathers to appear larger than they actually are) my dogs are rather less likely to misread the chemical signal left by a fellow canine, let alone the sight of its raised hackles, than I am the nuances of any conversation that might transpire with a neighbor while we're all out for a walk. In everyday life, the muddles that can arise from the slipperiness of verbal communication, especially in written form, and hence in the absence of invaluable non-verbal signals, can be a real drag. In verbal works of art, however, this very multivalence, or semiotic openness, is of the essence of the aesthetic experience. More troublesome, potentially, is a further concomitant of the increased semiotic freedom facilitated by articulate language: namely, the development of a certain alienation from our own corporeal being and sensory perceptions, and, potentially, from other beings (especially other-than-human ones) and from the natural world more generally. Once inducted into the world of words, and hence into a particular cultural formation, the recognition of our corporeal, or psycho-physical, interconnectedness with other creatures and our earthly environs no longer comes naturally. Paradoxically, the cultivation of our own bodily being, along with our connectivities with non-human others, is necessarily a cultural achievement, and, as Gernot Böhme (2003) puts it, an “ethical undertaking” (see also 76 *Aesthetics of Nature* on the role of aesthetics in this process). Societies vary significantly in this respect, and one of the distinguishing features of euro-western culture, in the view of ecophilosophers such as Val Plumwood (2002), has been the predominance of dualistic discourses of human exceptionalism, often grounded in claims about language and reason as opposed to, and elevated above, the merely material realm of nature, which systematically occlude the recognition of our own natural-ity, whilst sanctioning the ruthless human exploitation of otherkind and our earthly environs, and contributing thereby to the growing degradation of both human and non-human habitats.

It is important to recall, however, that the West by no means has a monopoly on animal exploitation and environmental degradation: consider, for example, the slaughter and cruelty entailed in the use of animal products in traditional Chinese

medicine, or the utter denudation and consequent socio-ecological collapse of Easter Island in Polynesia. Nor has the hyper-separation of human reason and language from other-than-human forms of cognition and communication, which became accentuated in Western culture with the ascendancy of Renaissance humanism and Cartesian mind-matter dualism, ever gone unchallenged. Long before Jacques Derrida (2008) was prompted to reflect self-critically upon the “phallogocentrism” of Western philosophy on finding himself beheld in his human-animal nakedness by a feline companion, Michel de Montaigne (1533–1592) pondered, “[w]hen I play with my cat, who knows whether I do not make her more sport than she makes me?” Desiderating the “vanity” of Man, who imagines “that he equals himself to God, attributes to himself divine qualities, withdraws and separates himself from the crowd of other creatures, cuts out the shares of the animals, his fellows and companions, and distributes to them portions of faculties and force, as himself thinks fit,” Montaigne (1842, 206) insists that animals “have a full and absolute communication amongst themselves, and that they perfectly understand one another, not only those of the same, but of divers kinds,” while cautioning that while we too are able to engage in various kinds of interspecific interchanges, our insight into the “secret and internal motions of animals” is inevitably limited; for we are, after all, only human. In the following century, Jakob Böhme (1575–1624) also acknowledged the ‘natural language’ (*Natur-Sprache*) of other-than-human beings, albeit in a more mystical key than Montaigne. Reworking the alchemical ‘doctrine of signatures’ previously postulated by Paracelsus (1493–1624), and drawing also on Christian Neoplatonism and Jewish Kabbalism, this heterodox Lutheran theologian and free-thinking philosopher (Weeks 1991) proposed that all creatures disclose themselves, not only to humans but also to one another, through the distinctive resonance or ‘voice’ (*Hall*) that emanates from their corporeal form, drives and appetites. According to Böhme, human verbal language also retains traces of a putative pre-lapsarian mode of speaking, which participated in the primal “sensual language” still “spoken” by other creatures; and although the original names that Adam bestowed upon creation in this natural language had been lost as a consequence of the Fall, he maintained that it was yet possible to have mystical access to them through the agency of the Holy Spirit (as he claimed to be able to do himself) (Goodbody 1984, 28).

2 Proto-biosemiotics in German philosophy around 1800

While, as we shall see, Montaigne’s observations resonate more strongly with the depiction of other-than-human sign relations in Clare’s animal poetry, it was Böhme’s novel notion of ‘Natur-Sprache’ that nourished the proto-biosemiotic line of thinking that began to emerge in the German region in the latter part of the eighteenth century.

As Axel Goodbody (1984) explains in what remains, to my knowledge, the only book-length study of this key Romantic topos, discussions of ‘natural language’ or the ‘language of nature’ made their way into German Romanticism via J. G. Hamann’s and J. G. Herder’s reception of Paracelsus and Jakob Böhme in the mid to late eighteenth century. This lineage is apparent, for example, in Novalis’s (1968, 267) notes towards his counter-*encyclopédie* (*Das allgemeine Brouillon*, 1798/1799), when he asserts that it is not only humans who speak, but “the universe speaks also – everything speaks – infinite languages,” adding, in a clear allusion to Paracelsus: “Doctrine of signatures.”

Paracelsus’ ‘doctrine of signatures,’ according to which the allegedly divinely-endowed characteristics of all natural entities were legible in their outward appearance, itself constituted a significant new departure within the older theological topos of Nature as the ‘Book of God’: that is to say, as a second source of divine revelation alongside the Bible. As Hans Blumenberg (1981) has shown, this trope can be traced back to Augustine, whose *De Dialectica* (398) also contains what Favareau considers to be the first recorded definition of sign relations within Western thought, which embraces both the indexical signs that are rife in the natural world and human linguistic signs: “had the contingencies of history been otherwise,” Favareau (2008, 7) laments,

and had sign study proceeded from Augustine’s definitions, rather than from a radically disemboweled version of Aristotle [...] we may not have found ourselves here today still trying to establish as a general understanding the idea that the world of sign relations *per se* did not start with the advent of *homo sapiens* – and that a sign relation is not something that was created *ex nihilo* by the minds of human beings – but rather, that the minds of human beings are themselves the product of a *de novo* use of absolutely natural and biological sign relations.

As words in the Book of God, however, earthly phenomena were construed by Augustine and later theologians up until at least the late seventeenth century, not as communicating in their own right, but as a medium for the voice of heaven. For Paracelsus too, Nature as a whole was divinely authored. But the doctrine of signatures accords to individual phenomena the capacity to communicate of themselves, albeit in the limited sense of signaling their “virtues” with respect to human interests (notably, in the case of plants, their medicinal uses) and thus pre-eminently, for human eyes. As already noted, Böhme’s elaboration and radicalization of Paracelsus’s ‘signatures’ transgresses this anthropocentric limit to allow for the physical self-disclosure of living things to one another, thereby decentering humans as the only creatures capable of interpreting these corporeal signals.

Now, when Hamann (1730–1788) and Herder (1744–1803) revived this train of thought, it was in clear contradistinction to the way in which the older trope of the Book of Nature had begun to be deployed in the meantime, following the rise of the mechanistic, dualistic and empiricist ontologies and epistemologies of the Enlightenment. Whereas the new rationalist theological orthodoxy had relegated the divine author to a non-interventionist role outside of Creation, whilst rendering His work

newly legible according to the physical laws of nature and in the language of mathematics, Hamann and Herder sought to regain a sense of the material world as composed of an inherently meaningful ‘hieroglyphics,’ which demanded a different kind of hermeneutics. For Hamann, this was a mystical hermeneutics, the purpose of which was a deeper experience of deity as disclosed through contemplative, as distinct from objectifying and instrumentalising, ways of knowing (Blumenberg 1981, 30). This was also true to some degree for Herder, who was an ordained Lutheran minister, as well as a leading thinker of what Jonathan Israel (2001) has termed the ‘radical enlightenment.’ This philosophical lineage descends largely from the underground reception of the controversial Dutch Jewish philosopher, Baruch Spinoza (1632–1677), and, through the intermediary of Herder, subsequently contributed significantly to the development of early German Romanticism. I will return to Herder’s reworking of Spinoza, and its centrality to Romantic understandings of Earth’s “poesy” in due course. Firstly though, I want to consider a fascinating earlier essay that Herder wrote for the Prussian Royal Academy of Sciences’ 1770 competition to determine whether humans were capable of inventing language, solely on the basis of their natural abilities.

In his “Treatise on the Origin of Language” [*Abhandlung über den Ursprung der Sprache*], Herder (1985) rejects the theological premise that language was gifted to humans by God, while simultaneously complicating the opposing rationalist view that it is an arbitrary human invention. He begins by stressing the creaturely dimensions of human communication, asserting that “[a]lready as an animal, the human being has language” (Herder 2002, 65; emphasis in the original). This is the language of affect – of cries, sighs, and yells of joy, for instance – that we share with other animals. While generally subordinated to the conventional signs of articulate speech, this creaturely ‘natural language’ continues to flow as an underground current in much of our communication, as well as granting us an intuitive understanding of the affective responses of other animals, especially those with whom we have a greater affinity, such as terrestrial herd animals, as distinct from those who are more dissimilar from us in “nerve structure” and way of life, such as sea creatures (2002, 67). Yet, while Herder allows that remnants of those natural sounds that are specific to our species being constitute the “juices which enliven the roots of language” (68), he insists that articulate speech – the conventional language that has to be learnt anew by every child of every generation in every human culture – is a distinct development. Rather than construing this as a willful “invention,” however, he stresses that it was a natural and necessary outcome of our relatively undelimited “circle” or “sphere” of activity and corresponding paucity of innate technical skills and instincts: “the more numerous the functions and the destiny of animals are, the more dispersed their attention is over several objects, the less constant their manner of life is, in short, the larger and more diverse their sphere is, then the more we see its sensuousness distribute itself and weaken” (78; emphasis in the original) and, so Herder reasons, the greater its need of a more complex mode of communication.

In the absence of the kinds of ethological research that are only now beginning that to disclose the extensive role of learning, and hence culture, in the communicative practices of several other species (such as cetaceans, some birds, dogs, and other primates), Herder probably overstates the uniqueness of human speech. Importantly, however, he stresses that the language of words emerges only in and through our embodied experience of a more-than-human world that resounds with the voices of other creatures. Herder traces the development of human language to our innate disposition for 'reflective discernment' (*Besonnenheit*), the cognitive desire to identify what is distinctive about each physical entity that comes to our attention, which compensates for our paucity of other instincts. Herder exemplifies this process of reflective apperception in a distinctly Arcadian primal scene of human language-formation involving a fellow creature, which initially appears to the senses of sight and touch as "white, soft, woolly": unlike the hungry wolf, who is liable to cognize the lamb exclusively with reference to its own appetites as food, or the randy ram, who sizes it up as a potential mate, Herder's first human, propelled by a different kind of appetite, namely, the desire to know (the *appetitus noscendi*, as Augustine put it [Trabant 2009, 125]), apprehends the lamb's vocalization as its 'distinguishing mark' (*Merkmal*), and is thereby imagined to have cried out inwardly to himself, "Aha, you are the bleating one!" (Herder 2002, 88). Whereas G. W. F. Hegel would later construe human naming practices as a form of mastery that "annihilates" the singularity of all things by substituting for the particularity of their physical reality something ideational that could henceforth exist in the absence of the thing thus named (Rigby 2004, 123), Herder traces the origins of language to an act of non-appropriative attentive listening to the animal other, who is perceived, moreover, as an *alter ego*, a "thou" (Trabant 2009, 130). (It must be admitted, however, although Herder does not do so, that this would not necessarily have prevented the subsequent classification of the lamb, by said human no less than the wolf, as food, or even, by said human no less than the randy ram, as an object of genital gratification!) In my view, Hegel also has a point: but Herder's fundamentally dialogical account of the origins of language implies a mode of ethical comportment as proper to human being, or rather, becoming human, which bears profound ecological and biosemiotic significance: this is, as Trabant (2009, 130) observes, "an appeal to let the world breathe and resound, and to dialogue with it."

For Herder, language and thought are inseparable: indeed, in arguing that the recognition of the lamb *qua* lamb by her bleating occurs first as a responsive bleating in the soul of the cognizing human, he implies that the use of words to communicate with others is secondary to the function of language as a way of thinking. This secondary function is nonetheless no less crucial to the process of becoming human, which Herder understands to be an historically unfolding process, entailing ever-widening circles of sociality, from families, through tribes and nations with their gloriously diverse languages and hence (potentially conflictual) ways of thinking, to the transnational and ultimately global: for humans, Herder (2002, 159–161) insists in conclusion, are not "national animals," but one "species" with the capacity to grow

in understanding and accomplishments by respectfully learning from one another across the permeable boundaries of cultural and linguistic difference. Moreover, while Herder might be mistaken in his assertion of the uniqueness of the cognitive desire that, he claims, all humans (but only humans) share, the spoken language to which it gives rise is activated by our embodied participation in an even wider, namely trans-species, Earth community. If, as ancient tradition has it, human speech first took the form of song, then, Herder (2002, 104) speculates, this must have comprised a “concerto,” composed out of the diverse vocalizations of other creatures, “to the extent that his understanding needed them, his sensation grasped them, his organs were able to express them [...] within the natural scale of the human voice”: here then, the human poesy of words is thought to have enjoyed its first flowering as a mode of participation in the polyphonic song of the Earth.

At the time that Herder penned his entry for the Berlin Academy’s essay competition on one of the hottest topics of the age, he had already begun to take an interest in Spinoza, having perused his *Ethics* (*Ethica*, 1677) and *Theological-Political Treatise* (*Tractatus Theologico-Politicus*, 1677) in the late 1760s. Influentially, Herder also commended Spinoza (along with German folksong) to the younger writer, J. W. Goethe (1749–1832), whom he met in 1771, and together they embarked on a close study of the *Ethics* during 1773–1774. Spinozan references and ideas become increasingly frequent and significant in Herder’s writing from this time, but it was only in the wake of the virulent critique of Spinozan ‘nihilism’ launched by the theologian J. H. Jacobi (1743–1819) that Herder truly “came out” as a Spinozist in his famous *credo*, *God: Some Conversations* (1787) (Bell 1986; Forster 2012). In addition to embracing Spinoza’s historically contextualizing and de-mythologizing approach to biblical hermeneutics, along with his democratic and egalitarian political orientation, Herder adopted a version of his metaphysical monism: that it, the understanding of mind and matter (or ‘extension’), God and Nature, as indivisible, albeit distinct, manifestations of the one universal substance. There is perhaps already a trace of Spinozan monism evident in Herder’s insistence that human language and hence thought is wholly dependent upon our bodily participation in the communicative matrix of the more-than-human world. But it was only in his essay “Shakespeare” (Herder 1993), which sparked a craze for Shakespearean drama in Germany and defined the terms in which it also became revalued in Britain during the Romantic period (and beyond), that he openly asserts that “the whole can be called that giant God of Spinoza, ‘Pan! Universe’” (1993, 515).

Herder’s was nonetheless a renovated monism, which departed from Spinoza’s in key respects. In place of Spinoza’s static universal “substance,” Herder reconceives the divine as an active and mind-like “primal force” that is manifest in all creation, which is in turn understood in terms of becoming, rather than being. Whereas Spinoza’s view of nature remained within the mechanistic paradigm that predominated in the seventeenth century, Herder embraced the new perspective of dynamically interacting forces and organic growth that was emerging from the development of the life

sciences, along with the study of chemical, electrical and magnetic phenomena. In *God: Some Conversations*, Herder construes nature accordingly as “a system of living forces based in the primal force, God,” while characterizing this system as “a progressive self-development toward ever higher forms of articulation” (Forster 2012, 80). In this way, Herder implicitly reconceives of the Book of Nature as self-scripting and evolving, rather than as externally authored and immutable. And it is in this sense that Friedrich Schlegel would later reframe the human capacity to create verbal works of art as an outgrowth of Earth’s “poesy”: for what is nature itself, from this neo-Spinozist perspective, but “an eternally self-creating work of art,” as Schlegel put it in one of his youthful jottings (qtd. in Zimmermann 1978, 242)?

Another of Schlegel’s conversation partners in Jena whose thought was profoundly informed by Herder’s renovated monism was the philosopher Schelling (also a keen reader of Jakob Böhme and Renaissance Neoplatonism, and an inheritor of Kant’s crucial epistemological distinction between *noumena*, or things-in-themselves, which we can never know directly, and *phenomena*, things as they appear to the human mind). In his *System of Transcendental Idealism* (*System des transzendentalen Idealismus*, 1800), Schelling (1978, 232) too refers to “what we call nature” as “a poem lying pent in a mysterious and wondrous script.” More importantly, though, Schelling’s mature philosophy of nature articulates an early version of the theory of evolutionary emergence. Inspired in large part by new biological research, including Goethe’s work on plant morphology and “metamorphosis,” Schelling reinterpreted Spinoza’s *natura naturans* (“nature naturing”) as an immanent principle of purposive self-organization and dynamic self-transformation within the temporal becoming of the natural world as a whole (*natura naturata*, or ‘nature natured’), which he came to think of as a meta-organism (*allgemeiner Organismus*), of which human consciousness too was integrally a part. According to the post-Kantian, neo-Spinozist theory of dynamic evolution advanced in *On the World Soul* (*Zur Weltseele*, 1798), life is not infused into matter from outside, but rather matter itself had acquired life with the emergence of organic forms: “Organic matter has *formed within itself* the principle of life” (Schelling 2000, 255; emphasis in the original), implying that the potential for the emergence of living organisms is inherent in nature. Similarly, human consciousness was not infused into organic matter from outside, but could now be understood as having emerged through an evolutionary process, which, in his *First Outline of a System of the Philosophy of Nature* and the separately published *Introduction* thereto (both considerably indebted to his conversations with Goethe during this period), Schelling attributed to the dynamic interplay of generative and inhibiting forces within the infinite “productivity” of natural becoming (Nassar 2014, 193–202). There was, therefore, a real (as opposed to an ideal or transcendental) continuity between inorganic and organic matter, and between organic life and human consciousness: all things, moreover, remained interconnected within that “common medium” (Schelling 2000, 257) that Schelling had previously troped under the ancient name (with more recent Neoplatonic resonances) of the “world soul.”

The exemplar that Schelling provides as evidence for the ‘common medium’ interconnecting all natural phenomena at the end of the *World Soul* is the observed behavior of those animals who become visibly distressed immediately prior to the occurrence of large earthquakes: it is, he writes, “as if the same cause, which shatters mountains and raises islands out of the sea, also moves the breathing breast of animals” (Schelling 2000, 257). There is now considerable empirical support for this phenomenon, which provides an intriguing instance of those zoosemiotic processes that are just beginning to be rigorously investigated (Maran et al. 2011). With respect to the living world, moreover, it is tempting to argue that Schelling’s ‘common medium’ is nothing more, nor less, mysterious than the communicative matrix of biospherical semiosis. This is not a possibility that he pursues here though, preferring to look for a universal connection, which he refers to as a “formative ether” (Schelling 2000, 257), instead of considering the existence of particular communicative media, such as those that evidently enable certain other species to pick up atmospheric, haptic or auditory signs of an imminent earth movement that human senses are too dull, or too dulled, to discern and decode. In his earlier discussion of animal ‘irritability’ and ‘sensitivity’ (*Erregbarkeit* and *Sensibilität*), Schelling does nonetheless move in a distinctly biosemiotic direction.

In the biology of his day, these were two of the three primary modes of ‘excitability’ that were seen to be characteristic of all life, the third being ‘reproduction’ (including growth, maintenance, self-repair, and drives, in addition to the generation of individuals of like kind). ‘Irritability’ referred to physiological responses to external stimuli, such as the contraction of muscles, changes in the movement and constituents of bodily fluids, and alterations to the action of inner organs (i.e. similar to what would now be referred to as autonomic nervous system reactions). ‘Sensitivity’ was connected with ‘irritability’ but referred to the ability to make and retain impressions of external stimuli, to interpret them, as it were, if not necessarily consciously. The kinds of sensible impressions thus formed, moreover, were in turn related to an organism’s particular corporeal organization, its physical form, and, hence, its psycho-physical capacities, impulses, and orientations. What Schelling (2000, 248) refers to here as an animal’s “sphere of characteristic impressions” (*Sphäre eigenthümlicher Eindrücke*) is, I would suggest, an important precursor to Jakob von Uexküll’s notion of the animal’s *Merkwelt*, the semiotic bubble, through which it construes and negotiates its *Umwelt*. The signs that an animal registers as significant, for instance through its faculties of sight and hearing, Schelling (249) goes on to argue, are conditioned by its innate inclinations – its “instinct.” Recalling Herder’s insistence on the embodied nature of human thought and language, Schelling acknowledges that the human subject too only sees and hears that which s/he is “motivated” or “impelled” to recognize (*wozu er zu erkennen Trieb hat*) (250; emphasis in the original). This, however, he designates as a “higher instinct,” which, when directed towards that which is great and beautiful, is called “genius” (250). In other words – those which he would later use in the *System of Transcendental Idealism* – what we call ‘genius,’ those brilliant insights and

leaps of imagination that underpin both artistic creativity and some kinds of scientific discovery, involves the agency of 'the unconscious' (*das Unbewußte*, a term that he coined and Sigmund Freud made famous), or what Maurice Merleau-Ponty referred to as "silent [i.e., pre-verbal] knowing" (see ↗3 Merleau-Ponty and the Eco-Literary Imaginary).

It is important to stress that Schelling's commitment to reconnecting human consciousness and creativity with the more-than-human realm did not imply the negation of human freedom. This is now reconceived, however, as a potential that has arisen out of a temporal process of development that had given rise to increasingly complex levels of organization in the living world: what biologist and proto-evolutionary thinker Karl Friedrich Kielmeyer, one of Schelling's major sources (and, subsequently, his son's professor) termed the "organizational sequence" (Richards 2001, 247). With the evolutionary emergence of human consciousness in what was taken to be the (as yet) most complex organism in this sequence, Schelling believed that Nature had acquired the capacity to reflect upon itself. There is, no doubt, a moment of humanist hubris here, but it is qualified by the recognition not only of human dependence upon the prior and ongoing processes of natural becoming, but also of the untranscendable limits of human knowledge. If we are ourselves a part of nature, we can never step outside it to know it as a whole; and since, according to Schelling's holistic thinking, the individual parts acquire their full meaning and significance only in relation to this elusive whole, any understanding that we form of them will necessarily be partial. Not only does this imply that nature can never be fully transparent to human reason: Schelling also came to accept that reason could not be self-grounding (Bowie 1993, 159–168). Moreover, Schelling's recognition of the role of 'instinct' in shaping every creature's 'sphere of characteristic impressions' implies that humans are no less enclosed within what von Uexküll would later characterize as a species-specific semiotic bubble than are other living beings. Schelling's proto-biosemiotic elaboration of Kielmeyer's 'organizational sequence' does nonetheless point towards the growth in 'semiotic freedom' associated with the development of more complex organisms along a continuum that, in Jesper Hoffmeyer's analysis also culminates, at least for the present, and insofar as we can tell, with articulate human language. Schelling put it this way: in the human sphere, the creative freedom of *natura naturans*, which Schlegel tropes as Earth's poesy, is raised to a new 'potency.'

Under the electrifying influence of his conversations with Schlegel's group, Schelling came to identify the work of art, that is to say, the process of artistic creation, as the privileged locus for the re-unification, on a higher level, of mind and matter, thought and feeling, conscious and 'unconscious.' In his *System of Transcendental Idealism*, Schelling resolves the opposition between the 'unconscious' poesy of (non-human) nature and the intentionality of human artistic creation that was implicit in the opening effusion of Schlegel's *Dialogue*, by proposing that the work of art is not, after all, a purely intentional product, but rather emerges from the interplay

of unconscious urgings (the subject's 'inner nature') and conscious crafting. In Robert Richards' gloss, Schelling's argument runs like this:

Insistent forces thus well up from the unconscious nature of the artist and rush in turbulent cascades through the narrows of consciousness. This creates [...] violent eddies of contradiction that "set in motion the artistic urge." Such contradictions can only be calmed in the execution of the work of art. As the artist comes to rest in the finished, objective product, he or she will sense the union of nature and self, of necessity and freedom, of – finally – the unconscious and the conscious self. (Richards 2001, 162)

In this work, Schelling also discusses a mental phenomenon that he terms 'aesthetic intuition' (*ästhetische Anschauung*), which he believed to play an important role in scientific discovery no less than in artistic creativity. Such intuitions are in play, Schelling (2001, 227–228) argues, when an idea impresses itself upon the mind before one has grasped what it means or how it has been arrived at, or when a sense of the whole has been glimpsed prior to the analysis of the parts that constitute the phenomenon in question. It is the 'poetic capacity' (*Dichtungsvermögen*) that enables these kinds of intuitions to find their initial articulation in figurative language: metaphor, in this sense, constitutes a bridge whereby that which is as yet unknown enters into the sphere of the known. As Wendy Wheeler (2011) has observed, Schelling's theory of the creative agency of metaphor (and, I would add, aesthetic intuition more generally) can be seen as a significant precursor to Peirce's notion of 'abduction': that is, the process whereby signs that have been registered and associations that have been made below the level of consciousness by the *Umwelt*-aware embodied mind give rise to insightful new "hunches."

3 Ecosemiotics in English Romantic Verse

Just as the process of artistic creation requires the capacity to tune in to one's own inner nature, so too, it was widely believed during the Romantic period, to apprehend the "voice" of other-than-human nature necessitated the relinquishment of an objectifying and instrumentalist agenda (Zimmermann 1978, 244). This perspective, which can be found on both sides of the English Channel, is formulated programmatically in William Wordsworth's paired poems, "Expostulation and Reply" and "The Tables Turned," in the avant-garde collection that he published with Samuel Taylor Coleridge, *Lyrical Ballads* ([1798] 1992, 107–109). Chided by his friend, "Matthew," for sitting around idly daydreaming by the shore of a lake when he should be improving his mind by imbibing "the spirit/breathed/From dead men to their kind" in the medium of the written word, the speaker of "Expostulation and Reply," who shares the author's name of "William," counters with a philosophical defense of contemplation, arguing that the cultivation of a "wise passiveness" affords a different kind of

mental nourishment, namely by means of those other-than-human utterances that arrive unbidden from “the mighty sum/Of things forever speaking.” In the following poem, William “turns the tables” on his bookish friend by chiding him for sitting around reading when he should be out for a meditative evening stroll, exposing himself thereby to what is mysteriously referred to as “the light of things.” Elsewhere (Rigby 2014b, 118–120) I have argued that this involves stilling oneself sufficiently to allow things to disclose themselves in their own way and their own time: this is to “come forth,” as we read in the last lines, “and bring with you a heart/That watches and receives.” In order to allow yourself to be illuminated by the “light of things,” then, you are going to need to surrender for the moment your perhaps perfectly legitimate desire to objectively know and instrumentally use them, and position yourself instead as the recipient of whatever it is that they might have to reveal to you, perhaps surprisingly, even amazingly, that is to say, in ways that exceed your expectations, comprehension, and capacity adequately to respond to their address.

In another poem from *Lyrical Ballads*, “Lines Written in Early Spring,” the speaker, who is reclining in a grove in just such a contemplative state of mind, apprehends not only “a thousand blended notes,” the diverse sounds of the more-than-human world in which he is immersed, but also the pleasure that the particular beings who surround him appear to be taking in their own inter-active existence:

Through primrose tufts, in that green bower,
The periwinkle trailed its wreath;
And 'tis my faith that every flower
Enjoys the air it breathes.

The birds around me hopped and played,
Their thoughts I cannot measure:—
But the least motion which they made,
It seemed a thrill of pleasure.

The budding twigs spread out their fan,
To catch the breezy air;
And I must think, do all I can,
That there was pleasure there (Wordsworth 1992, 76)

As Marjorie Levinson (2007) has observed, Wordsworth’s verbal constructions imply an active reaching out to aspects of the environment. Together with the speaker’s profession of “faith” that in doing so these birds and plants were taking pleasure in their own existence, there is an echo here of Baruch Spinoza’s concept of *conatus* i.e. the impulse to preserve their being and augment their capacities, to compose and recompose themselves with and through their dynamic relations with others, which he accorded to all physical entities, animate and inanimate, individual and collective. Levinson rightly attributes the reception of Spinoza within English Romanticism to the Spinoza-controversy of the mid-1780s, but without noting the specifically

Herderian cast of Wordsworth's neo-Spinozism. This is perhaps most evident in his famous "Lines Composed a Few Miles above Tintern Abbey, on revisiting the Banks of the Wye during a Tour. July 13, 1798," when the speaker recalls being arrested by:

[...] the sense sublime
 Of something far more deeply interfused,
 Whose dwelling is the light of setting suns,
 And the round ocean and the living air,
 And the blue sky, and in the mind of man;
 A motion and a spirit, that impels
 All thinking things, all objects of all thought,
 And rolls through all things (Wordsworth 1992, 118)

This divine "something" is no longer a static substance, but an indwelling propulsive force, "a motion and a spirit," which is materialized in the "least motion" of all "Nature's works," including the "human soul," as we read in "Lines Written in Early Spring," in their endeavour to "preserve a kinetic poise within a dynamic ensemble of relations, an ensemble that also composes them *as individuals*" (Levinson 2007, 377). What Wordsworth also hints at here is that this process of interactive co-becoming is inherently semiotic, with plants as well as birds seen to have a sense of their own existence within what Schelling termed their distinctive 'spheres of characteristic impressions.'

Among Romantic poets none attend more closely and caringly to the sign relations of fellow creatures than the English poet John Clare (1793–1864). I would therefore like to conclude with a brief discussion of one of his many ecosemiotic animal poems, "The Yellowhammer's Nest" (Clare 2003, 185). Here, as in his other bird's nest poems, Clare deploys the uniquely human code of writing, along with the culturally specific conventions of Romantic counter-pastoral, to invite the reader to participate imaginatively in a rural ramble, with a view to gaining a better appreciation of the life-world of another being. In so doing, he also draws attention to the corporeality of human semiosis in his depiction of the physical actions and sensory perceptions that enable the discovery of the hidden nests. In "The Yellowhammer's Nest," for example, this involves altering a habituated mode of bodily comportment, as the interlocutor is invited to "stoop/And seek" the nest of this vulnerably ground-nesting bird. In the multivalent semiotic frame of the poem, this surrender of upright posture in turn becomes legible as a metaphor for the surrender of human sovereignty, if not, as becomes apparent in all of Clare's verse, of the ethical responsibility of respecting, and where appropriate, protecting the lives of otherkind. This begins with becoming attentive to other-than-human practices of *poietic* environing, or place-making, such as the building of nests. Here, this is shown to involve the recoding of material objects appropriated from the human Umwelt, which acquire a new meaning when incorporated into that of the birds, such as the "bleachéd stubbles and the withered fare of last year's harvest", which, together with "the horse's sable hair," provide building

materials for the Yellowhammer. In addition, Clare highlights the affective dimension of the bird's interpretation of phenomena in their Umwelt, as the speaker observes the outward signs, in the 'natural language' of affect (to recall Herder), of the Yellowhammer's apprehension of the cowboy harvesting dewberries as a potential source of threat; similarly, he detects a mournful tone in the parent birds' warbling in the wake of the loss of their young to a watchful snake, for whom the fledglings had been interpreted (appropriately enough for them, but tragically for the bereaved birds) as food. While Clare's poems invite empathy on the basis of a shared creatureliness, "The Yellowhammer's Nest" nonetheless also draws attention to the potentially colonizing tendency of human claims to be able to decode "nature's poesy":

Five eggs, pen-scribbled o'er with ink their shells
 Resembling writing scrawls which fancy reads
 As nature's poesy and pastoral spells— (Clare 2003, 185)

By attributing the recognition of resemblances between egg-shell markings and "writing scrawls" to "fancy," Clare implicitly urges respect for the alterity of otherkind and their unfamiliar Umwelten.

As I have argued elsewhere (Rigby 2014a) with regard to Goethe's poem "The Metamorphosis of Plants" (1798), it is with respect to the ethical implications of observing both continuities and differences between human and non-human semiotic processes and environings, that a reconsideration of Romantic ecopoetics might contribute to advancing biosemiotic research in the present: Romantic philosophy and literature, in other words, is not merely of historical interest for its pre-figuration of later biosemiotic insights; it might also help to provide an enhanced understanding of the complex interrelationship between natural becoming, or the 'language of nature,' cultural codes, and poetic communication. There is much more research to be done in this area by biosemiotically-inclined Romanticists. **More generally though, too, biosemiotic ecocriticism is still in its infancy.** While I have begun to suggest some of the ways in which particular works of Romantic thought and literature engage with more-than-human sign relations, such engagements are awaiting exploration with respect to other times and places too, as indicated by Louise Westling (2014 and ↗3 Merleau-Ponty and the Eco-Literary Imaginary) in her biosemiotically-informed discussion of the 'ecological imaginary' from the ancient Sumerian *Epic of Giglamesh* through to contemporary poetry and fiction, in relation to Maurice Merleau-Ponty's phenomenology and especially his remarkable late lectures on Nature. In addition, and crucially, literature (and other creative arts) can provide great insight into the dynamic interactivity of verbal and non-verbal semiosis within and between human percepts, affects, and relations. This lies at the center of much of Wendy Wheeler's biosemiotic research, and is explored further in the previous chapter (↗1 The Lightest Burden).

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