Irregular Regularity: A Chaos-Theory Reading of the Ecology Presented in Coleridge's "Frost at Midnight"

A.C. Swanepoel

Summary

This article contextualises the ecocritical assumption that nature determines one's ideology within a chaos-theory framework, and argues that Coleridge's "Frost at Midnight" can be seen as an ecosystem, symbolic of the complex relationship between humans and nature. It then proceeds to argue that the complexity of this relationship, which is expressed thematically, is also mirrored in the poetic language that Coleridge employs in the poem – specifically in the repetitions and images that he uses, which seem to "repeat" natural processes. The article shows, through close reading, how Coleridge's view of humanity (as represented by his child) in relation to nature is linked to and determined by his view of nature.

Opsomming

Hierdie artikel kontekstualiseer die ekokritiese aanname dat omgewing/natuur bepalend is van 'n mens se ideologie binne 'n raamwerk van chaosteorie en argumenteer dat Coleridge se "Frost at Midnight" gesien kan word as 'n ekosisteem; 'n simbool van die komplekse verhouding tussen mens en natuur. Voorts word geargumenteer dat die kompleksiteit van die verhouding wat tematies aan die bod kom ook blyk uit Coleridge se poëtiese taalgebruik in die gedig en spesifiek in die herhalings en beelde wat hy gebruik. Hierdie twee stylfigure "herhaal" natuurprosesse. Die artikel illustreer deur analise hoe Coleridge se siening van die mensdom (soos versinnebeeld deur sy kind) in verhouding tot die natuur sterk verband hou met en bepaal word deur sy eie siening van die natuur.

1 Introduction

Samuel Taylor Coleridge (1770-1850) was adamant that his children be brought up in the countryside, and so he left Bristol on the last day of 1797 to live in the country, in Nether Stowey. This move coincided with his withdrawal from active, public politics (Ashton 1996: 90; Roe 1990: 235-236). During this time, he frequently in letters wrote on the subject of "brotherly kindness" (Ashton 1996: 95). It was in this environment and frame of mind that Coleridge composed "Frost at Midnight", early in 1798.

Ecocritics would argue that the simultaneous shift in location and interest is no coincidence. In his influential *The Song of the Earth* (2000), Bate argues that humans are products of their environments. Following Charles-Louis de Secondat's and Alexander von Humboldt's lines of argumentation, he states that the weather may influence ideology (Bate 2000: 101). Stated differently, our view of nature determines our view of humanity. Coleridge, while living in the city, was a fierce spokesman for democratic reform and was opposed to war with France (see for example Roe 1990: 145-146). Moving to the country, he was still activist in his views (Roe 1990: 238-239), but retreated from active, public politics. This, ecocritics would say, was not merely a consequence of the restrictive legislation of the time, but more specifically of a change in environment. The French philosopher Michel Serres has developed this idea further and applies it to recent-day posthuman, wired environments, stating that humans are not products of their environments, but instead are slaves thereof. He asks rhetorically and ironically: “Can we still call these things [missiles, satellites, nuclear waste et cetera] objects, and the people who use them subjects?” (Serres 2006). Bate (2000: 101) stresses the importance of the environment when he writes: “Because they work indoors in their air-conditioned libraries, modern analysts of ideology – like Frankensteins enclosed in their laboratories – have forgotten about the weather”.

Writing from Nether Stowey, in post-French Revolution England, Coleridge is very much aware of the weather and this is evident not only in his view of nature but also in his view of humanity in relation to nature. This interrelation between nature and world view is the focus of this article.

Using a chaos-theory framework, I will argue that due to analogies between repetitions in the poem and the ones found in nature, “Frost at Midnight” functions much like an ecosystem and is, like nature, dependent on near-perfect repetitions. Subsequently I will consider the dynamics of the ecosystem within the poem, paying specific attention to the human-nature symbiosis. I will argue that this symbiosis is a result of the fact that humans metaphorically repeat nature. In conclusion, I will briefly suggest parameters for human-nature interaction in a posthuman environment that are founded in the poem.

2 Theoretical Framework

The above hypotheses rest firstly on a description of repetitions in the poem, and secondly on a description of chaos theory.

2.1 The Nature of Repetition

Repetition, according to both Shipley (1970: 269) and Scott (1985: 244), is the most basic principle of art. In poetry it underlies several stylistic figures such as assonance, metre, alliteration, consonance, rhyme and so on (Shipley 1970: 270). Being most basic, it is also very common. Shipley (1970: 270-271) identifies 28 broad types of repetition based, among other things, on what is repeated and how the repeating units are separated. Several of these types of repetition, such as *ploche* (repetition with variations), *antistrophe* (repetition in reverse order), *metagoge* (repetition that rings the changes in a word) and *paregmenon* (repetition of words of one root), are present in "Frost at Midnight". I will refer to them where relevant. I will use the term *near repetition* to refer to any repetition that includes variation, that is a repetition where the second, repeating part differs slightly from the first part of the repetition. These repetitions that Coleridge frequently uses in "Frost at Midnight" entail a sameness, or repetitiveness, but also a difference.

Besides formal repetitions such as the ones Shipley mentions, I will also refer to *metaphoric repetition*. I will argue that Coleridge draws humans into the repetitive processes of nature by showing how they repeat nature, either by using language, or by mimicking nature.

Shipley (1970: 270-271) makes an important point stating that "[r]epetition of any element at regular intervals ... produces a design. Some of the various units in a work may be repeated while others are not, giving the effect of 'irregular regularity'". Chaos theory, specifically fractal dimensionality, explains many complex processes in nature with reference to self-similarity, which could also be called *irregular regularity*.

2.2 Chaos Theory

Chaos theory is a complex field. I will, in this section, provide a brief overview of chaos theory, paying attention to three of its characteristics, namely fractal dimensions, the order underlying chaos, and sensitivity to initial conditions. These three things explain irregular regularity in nature.

Even though its origins can be traced back to the late 1800s (Anon. 2006) and even to antiquity (Sardar & Abrams 2000: 3-4), chaos theory only became prominent in the early 1960s. Scientists realised that nature was not as predictable as Newton had suggested. Instead, there were several things in nature that science could not account for. Scientists had to admit that systems were more complex than previously thought.

2.2.1 Fractals: Irregular Regularity

An important realisation in the history of chaos theory was the fact that what we observe depends on where we are positioned and how we measure it (Sardar & Abrams 2000: 33). If we look from afar at a ball it seems two-dimensional, but the closer we come, the more three-dimensional it becomes. The question arises: When does the object become three-dimensional? And what are its dimensions in between two-dimensionality and three-dimensionality? Benoit Mandelbrot, moving away from classical geometry, suggested that fractal dimensionality provides answers to these questions. He used the example of the coastline of England to illustrate the concept. Should one measure the coastline with a metre stick, one would get an approximate answer, which does not account for small nooks and crevices. Should one however measure the coastline with a matchstick, the coastline would seem much longer; the smaller one's measure, the longer the coastline would seem to be. Each of the smaller nooks is called a *fractal*. An important asset of fractals is that they are not regular shapes, but they are self-similar. Self-similarity implies that any subsystem of a fractal system is equivalent to the whole system. Fractals have the same general appearance as the whole (Sardar & Abrams 2000: 35). A cross section of a cauliflower, for example, reveals five florets, each of which has five smaller florets, and each floret again has five smaller florets, et cetera. A cauliflower has fractal dimensions. Each of the fractals repeats the whole, although it is not identical to the whole. This is also true of the bronchi in the lungs, the branches of trees, lightning and even the human brain. In nature many complex systems have fractal, repetitive structures.

Sardar and Abrams (2000: 34) write that to see a fractal is indeed to see infinity. It is almost like seeing the world in a grain of sand. Bate (2000: 111) writes that "Frost at Midnight" reveals Coleridge's "intuitive understanding" of the fractal structure of both time and weather. I believe that the poem also reveals his intuitive understanding of the fractal nature of space.

2.2.2 Order: Regularity

Fractal systems are both complex and orderly. According to Sardar and Abrams (2000: 45, 51) variables in a complex or "chaotic" system converge on what is referred to as a *strange attractor*. Attractors represent the states to which a system eventually settles. Strange attractors have fractal dimensions; they exist in an infinite dimensional space (known as phase space), but they themselves have only finite dimensions. Because variables in a complex system converge on a strange attractor, they repeat a basic pattern, the most famous being the so-called Lorenz attractor. These repetitions are referred to as "dense periodic orbits" (Anon. 2006). Despite fluctuations, variables in a complex system return to a more or less "normal" state: after the flapping butterfly wings caused a tornado in Texas (to use a well-known example), Texan weather ought to return to a normal state. This example illustrates irregular regularity in nature, and this basic principle governs weather patterns, animal population dynamics, economics and even the flipping of a coin (see for example Rea 2000). Chaos theory therefore paradoxically studies the order underlying randomness (Sardar & Abrams 2000: 82-83). Many theorists prefer to speak of *complexity theory* or *chaotics* rather than of chaos theory (Sardar & Abrams 2000: 81, 88), because they study the dynamics of complex systems with the ability to spontaneously self-organise (Sardar & Abrams 2000: 83).

2.2.3 Sensitivity to Initial Conditions: Irregularity

A complex system with its dense periodic orbits is, however, also sensitive to initial conditions. This means that a slight deviation from the (trajected) pattern or orbit can have a huge impact over time (Sardar & Abrams 2000: 42; Rea 2000), the so-called butterfly effect (Sardar & Abrams 2000: 26). Sardar and Abrams (2000: 27), for example, explain how an alteration of the movements of one electron in the atmosphere, a complex system, can result in a hailstorm.

Chaos theory therefore describes the irregular regularity in nature. Bogard (2000) summarises the dichotomy succinctly when he states that "[c]haos theory suggests that dynamic systems are nonlinear, nonequilibrial [but also] self-regulating". It stands to reason that within such as system, predictions are impossible (Anon. 2006).

The link between chaos theory and ecocriticism seems obvious. Chaos theory concedes that nature contains a deep order that emerges naturally (Sardar & Abrams 2000: 86). Not only does chaos theory explain natural processes, but it also reintroduces mystery and unpredictability into nature.

3 Echoing, Mirroring, Imaging: The Poem as Ecosystem

In "Frost at Midnight" Coleridge explores, among other things, how a fairly small change, namely a change of environment, can alter his child's future. This is reminiscent of the butterfly effect. This poem is one of Coleridge's so-called "conversation poems", which is a sustained blank-verse lyric of description and meditation, in the mode of conversation addressed to a silent auditor (Felluga 2000). It is characterised by an associative structure. The poem is written in free verse and depends on sound repetitions such as alliteration, assonance and word repetitions for its poetic nature, rather than on a fixed form and rhyme scheme. It is this free-associative type of repetition that strikes one on a first reading of the poem. Unlike normal repetition, one finds that "Frost at Midnight" introduces small changes in the repeating, second part of each repetition.

Consider for example:

> *The frost performs its secret ministry* (a)
> Unhelped by any wind …
>
> (lines 1-2; my emphasis)[1]

---

[1] All line references are to "Frost at Midnight" in Coleridge (2000: 87-89).

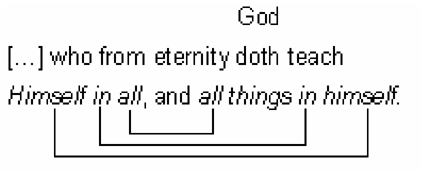
at the beginning of the poem, and near the end

> ... *the secret ministry of frost* (a)
> Shall hang them up in silent icicles
> Quietly shining to the quiet moon. (b)
> (lines 72-74; my emphasis)

In the quotations above, one finds two examples, a phrase (a) and a word (b), slightly altered when repeated. This type of repetition is called *ploche* – a repetition with variations. The repetition found in "[q]uietly" and "quiet" (line 74) could also be described as both *metagoge* and *paregmenon*, as it repeats both the sound and the root of the same word. *Ploche*, or repetition with variation, is also found in

> … Sea, hill, and wood
> This populous village! Sea, and hill, and wood,
> (lines 11-12; my emphasis)

and also in



> God
> [...] who from eternity doth teach
> *Himself in all*, and *all things in himself*.

(lines 61-63; my emphasis)

In this last example the typography indeed almost creates a mirror image: the words on either side of the word "and" repeat each other as though in a mirror. This type of repetition is called *antistrophe* – a repetition in reverse order. The near repetition, however, also introduces a change: the word "things" distorts what would have been a perfect *antistrophe* or mirror image. Furthermore, the small change in word order changes the meaning of the two near-repetitive phrases significantly.

Such repetitions frequently occur in the poem and are reminiscent of repetitions, loops and cycles to be found in nature. The idea of small changes introduced in repetitive systems reminds one of fractals, as explained by chaos theory.

In "Frost at Midnight" Coleridge explores and speculates on how a change of environment, a change in the present, can impact on his child's future. This theme is also symbolised and expressed in the structure of the repetitions that he uses. Coleridge's repetitions in "Frost at Midnight" may be seen as word equivalents, symbols for near-repetitive patterns, or fractals, in nature.

This phenomenon is not only confined to near repetitions in the poem, such as the ones discussed above. Many of the images used in the poem also conjure up the idea of a near-perfect repetition. For example, thinking himself back into his childhood, Coleridge looks forward to seeing his "playmate,/ When we both were clothed alike" (line 43) and the "idling Spirit" interprets the "puny flaps and freaks" of the film that flutters on the grate as an "echo or mirror" of his own mood (line 22). These images dealing with types of repetition such as mirroring, echoing, looking alike, include an element of sameness, a repetitiveness, but also a difference.

The poem, with its many repetitions, can be regarded as an ecosystem, symbolic of a contained, ordered whole encapsulating and dependent on near repetitions. One of the best examples to illustrate how the language of the poem imitates nature is:

> But thou, my babe! shalt wander like a breeze
> By lakes and *sandy shores*, beneath the **crags**
> **Of ancient mountain**, and beneath the clouds,
> Which image in their bulk both lakes and *shores*
> And **mountain crags** …
>
> (lines 55-59; my emphasis)

The words repeat like clouds repeat. The words in this quotation, like clouds, create near repetitions. Clouds never repeat or "image" (line 58) reality precisely, neither do they repeat each other, but they introduce change, much like the repetitive words in the example introduce syntactical and concomitant semantic changes in the repeating, second part of each repetition. "[S]andy shores" become "shores" in the repeating part, "the crags of ancient mountains" become "mountain crags". This is suggestive of the fractal nature of complex systems in nature, as chaos theory explains it. It is symbolic of the type of repetitions that underlie everything in nature. It would seem that the poem works according to the same underlying system as nature does, a system that suggests that small changes in the initial conditions may prove to be very significant.

4 Strange Repetitions: The Structure of the Poem

The most significant repetitive pattern in the poem is found in its narrative or chronological structure, where humans metaphorically repeat nature. The structure of the poem could be said to mirror or repeat not only other repetitions in the poem but also repetitive processes in nature itself. The repetitions in the poem are fractals, representing the whole on a small scale. The poem's narrative/chronology starts and ends with nature, as Coleridge's "abstruser musings" (line 6) move from nature to himself, his childhood, his child's future and back to nature. In the first part of the poem, Coleridge repeats – in the broadest sense of the word – nature by interpreting and symbolically refiguring it into language, and then projects how his child will "repeat" nature by living in harmony with it. There is thus a repetition implied between the two generations. Coleridge, however, intentionally changes his child's "initial conditions" in the hope of altering his future. I will now consider these repetitions and their effects, especially the way in which later changes are consequences of earlier ones.

4.1 Small Changes: Coleridge Repeats Nature

Coleridge provides verbal equivalents for his sensory experience of nature, repeating in language what he perceives and experiences subjectively. His view of nature, which Bate (2000: 102) deems of utmost importance, is thus expressed. When repeating nature, Coleridge employs language in a very peculiar way: he uses adjectives and similes that introduce small changes into the realm he describes. He namely introduces transcendent aspects, aspects of the unknown into nature, when he describes or repeats it.

Descriptors, such as adjectives and phrases that function adjectivally, normally modify and qualify nouns, aiding comprehension and as a result help one to visualise what is being said. Several of the descriptors in "Frost at Midnight" seem vague and unusual, even random. The frost is said to perform a "*secret* ministry" (line 1; my emphasis), meditation is vexed "with a *strange* and *extreme* silentness" (lines 9-10; my emphasis) and Coleridge describes his surroundings in Nether Stowey as "this *hush* of nature" (line 17; my emphasis).

Even though these descriptors contribute to the atmosphere of the realm created in the poem and add almost otherworldly shades to the respective nouns they qualify, they do not really contribute to one's visualisation of the natural environment and the phenomena in it. It is not a pure and complete rendition of the sensuous aspects of nature, of what Coleridge experiences. Like the clouds, Coleridge introduces changes as he describes or repeats nature. The nouns still largely carry familiar associations (we know what silentness is, what frost looks like), but the defining and modifying adjectives that are supposed to narrow the meanings of the nouns down, are imprecise and foreground an uncertainty regarding their visible features. The repetition in language is imprecise – it can be said to be a near-perfect repetition. What does the "hush of nature" (line 17) or the "eternal language" (line 61) sound like? The descriptors do not directly appeal to the senses, and instead of "solidifying" the phenomena described, they create a vagueness surrounding them. As a result one has to suspend one's disbelief willingly to form a mental picture of the environment. Within each of these phrases is an element suggestive of the transcendent, an element of the sublime, something surpassing our understanding. This may seem to be a small change, but it changes the way we, as readers, perceive nature. It moulds nature as a mysterious place that we cannot comprehend merely with our minds and senses. Furthermore, it is illustrative of how the poet sees nature and it determines the world view he projects for his child. In fact, there is a direct relationship between how Coleridge sees nature and the world view he foresees his child will have. In the future world that Coleridge projects in the last stanza, the world literally changes for his child.

Within this vague setting, Coleridge also has "[a]bstruser musings" (line 6). The emotive value of this image is strong and creates a gothic and mysterious atmosphere, but the image itself tells us very little of what Coleridge ponders; it does not reflect what he thinks. The poet seems to be in a mysterious harmony with his surroundings. It is almost as though his thoughts have the same fractal structure as his surroundings.

Such images at their clearest conjure different pictures in the minds of different readers, as they do not render a complete repetition of actuality. An element of uncertainty surrounds them. All of these images comprise an element beyond the senses, unlike for instance Keats's nature images in, among others, "Ode to a Nightingale". The result is that nature is elevated to a mythic, mysterious plane; nature eludes our grasp, because what is represented in verbal form, does not constitute an exact repetition of the world we know. The language introduces change into the realm.

Likewise, similes normally bring unfamiliar things within the frame of reference of the reader by comparing something unfamiliar or abstract with something known, giving one a point of reference to interpret the unfamiliar object. In a simile we expect the unknown to, in some way, repeat the known. In "Frost at Midnight" Coleridge does the exact opposite. He compares phenomena in nature to abstract things, and thereby creates a world that is indistinct and difficult to picture. The world described does not repeat what we know. Ashton (1996: 127) points out that this type of simile on the one hand draws the experience nearer (as that is what we expect a simile to do) and on the other hand emphasises the unusualness of the experience. In its repetition of nature, these word equivalents introduce small changes. Coleridge's child is said to wander like a breeze (line 54). Here something more or less familiar, a child's wandering, is compared to something rather abstract and unpicturable, namely movements of a breeze. Even though the image conjures a feeling of freedom, the child's actual wandering is cast into uncertainty and we are precluded from "seeing" it. In order to make sense of the image, one has to rely on one's imagination, and not merely on the information given. Put differently, one relies on one's imagination to make sense of the child's wanderings, and not on one's sensory experience, because Coleridge introduces change as he renders this experience into language. Similarly, "the numberless goings on of life" (a verbal rendition that already encompasses something unfathomable) are "inaudible *as dreams*" (lines 12-13; my emphasis). The unrepeatability creates a sense of elevation – a sense that we cannot fully understand nature.

The language that Coleridge uses introduces small changes to the world, and it places nature partially outside of our frames of reference and understanding. It repeats nature, but simultaneously changes it. It specific-ally changes and mediates our perceptions of nature. Images such as the ones described above could be called *precluding adjectives and similes*. I chose the word *preclusive* partly for its Latin roots and partly for its English meaning. *Preclude* comes from *praecludere*, which is derived from *prae* (before) and *cludere* (to shut/to close). The word's etymology brings to mind something that is foreclosed, perhaps closed before one's eyes. Coleridge reveals a natural space, but also keeps it hidden: it is as though he creates the world by hiding it. He gives one some clues as to what the world looks like, but in essence it remains inscrutable. The quantity of such images in the poem leads one's attention to that which is hidden. The result of the preclusion can be connected to the word's English meaning: it *excludes* one from fully comprehending the natural space and makes the realm mysterious and evasive. The inscrutability of the natural realm created in this way leaves one searching for the whole, and makes one aware of the immensity of nature. By showing or repeating only a part, and hinting at that which remains hidden, Coleridge makes one curious about the whole, especially those parts of it that are precluded. Coleridge uses the same technique to create otherworldly spaces in poems like "Kubla Khan" and "The Rime of the Ancient Mariner". The changes in the rendition of the world will alter the way we perceive and think about it. We actively construct the world of the poem, using our imaginations, knowing there's more to the realm than is suggested merely by the language. Stated differently: the language does not repeat what we know precisely, it does not repeat nature exactly, but it does repeat nature's workings. Like fractals in nature, the language in the poem repeats the whole on a smaller scale: the language firstly repeats the structure of the poem, but it is also self-similar to nature.

The preclusive images used in connection with nature are in stark contrast to the exact and precise images used in the description of the cultured cityscape that Coleridge associates with his childhood (stanza 2). In this space he sees the "stern preceptor's face" and makes a "hasty glance" to the classroom door which is "half open". Almost everything in this space is described clearly with much emphasis on sensory experience:

> And so I brooded all the following morn,
> Awed by the *stern* preceptor's face, mine eye
> Fixed with mock study on my swimming book:
> Save if the door *half* opened, and I snatched
> A *hasty* glance …
>
> (lines 37-41; my emphasis)

The preclusive images introduce the unknown into the known, and this small change not only conjures up curiosity regarding nature, creating the sense that the world is greater, grander and vaster than we can comprehend, but it also catalyses bigger changes, changes in world view. These small changes bring the reader to a different understanding of nature. The fact that the world is vaster than we can comprehend is in line with Coleridge's world view at the time when he wrote the poem.

Coleridge was attuned to the fact that nature surpasses our understanding. He expresses this view in a letter dated 16 October 1797 to Thomas Poole, when he relates that even from a very young age he formed all his creeds not by his senses but rather by his imagination. The letter also makes it clear that Coleridge was intrigued by the inexplicable and invisible in nature and in the world (Coleridge 2000: 503). In the same year Coleridge also wrote and published "The Rime of the Ancient Mariner". In the introductory note to this poem, Coleridge's fascination with the inexplicable is illustrated when he writes, "I can easily believe that there are more invisible than visible beings in the universe" (Coleridge 2000: 48-49). In his description of nature in "Frost at Midnight", he introduces the sublime and the transcendent, not only things transcending experience, but also transcending knowledge. He creates an unknowable nature, a sphere beyond our grasp. This presents a very different way of thinking about nature: following Newton's scientific contributions, many people of this era believed that nature was governed by identifiable laws and was therefore utterly controllable. Coleridge's world view brings mystery back into nature. This may seem like a small change, but it changes the course of Coleridge's child's life. Coleridge projects that this change would influence his child's initial conditions in such a way that the child would have divine knowledge, as will be explained shortly.

4.2 "[F]ar Other Scenes": Coleridge's Child Repeats Nature

Coleridge's train of thought, having sojourned in his own childhood, is brought back to his child, and then wanders into the future. The fact that Coleridge's thoughts move from his own childhood to his child's implies similarities or repetitions between the two of them and their experiences. Coleridge's mind is, however, focused on the difference. This is the point in the poem where he speculates on the effects that the different location would have on his child's future. He speculates on the effects of the change of initial conditions:

> My babe so beautiful! It thrills my heart
> With tender gladness, thus to look at thee
> and think that *thou shalt learn far other lore,*

and in far other scenes! For I was reared
in the great city, pent 'mid cloisters dim,
and saw nought lovely but the sky and stars.

(lines 49-54; my emphasis)

Coleridge effects change in the initial condition so that his child would not repeat his own (Coleridge's) childhood. Instead his child would repeat, or mimic, nature; he would "wander like a breeze" (line 54). This differs markedly from the poet's childhood experiences: unlike Coleridge who was distanced from nature, the child not only repeats nature, but becomes intimately part of it. Because Coleridge values nature, his child will be brought up in "far other scenes".

A change in the initial conditions will, according to the laws of chaos theory, amount to a huge and significant difference. Coleridge's child, repeating nature, as he "wander[s] like a breeze", growing up in close harmony with the natural environment, would have sublime knowledge. He would understand the "eternal language" that "God utters" (lines 61-62). "That eternal language, which thy God utters" (lines 61-62) is another preclusive image, but Coleridge suggests that this experience would not be precluded for his child growing up in a natural environment. His child's ability to gain divine knowledge is – according to Coleridge – a direct consequence of the child's upbringing in nature:

But thou, my babe! shalt wander like a breeze
By lakes and sandy shores, beneath the crags
Of ancient mountain, and beneath the clouds,
Which image in their bulk both lakes and shores
And mountain crags: *so shalt thou* see and hear
The lovely shapes and sounds intelligible
Of that eternal language, which thy God
Utters, who from eternity doth teach
Himself in all, and all things in himself.
Great universal Teacher! he shall mould
Thy spirit, and by giving make it ask.

(lines 55-65; my emphasis)

With the words "so shalt thou" (line 59) Coleridge implies a causal link between his child's upbringing and his divine knowledge: his child would come by his divine knowledge by dwelling in nature. Bate (2000: 41) writes that dwelling alone in nature is the most characteristic, most intensely Romantic route back to nature. The divine knowledge that the child will acquire would culminate in a life and ideology that would be entirely different from what it would have been, had he grown up in the city. The word "therefore" in the following lines again implies a causal link between the initial change (dwelling in nature) and the child's future:

> *Therefore* all seasons shall be sweet to thee,
> Whether the summer clothe the general earth
> With greenness, or the redbreast sit and sing
> Betwixt the tufts of snow on the bare branch
> Of mossy apple-tree, while the nigh thatch
> Smokes in the sun-thaw; whether the eave-drops fall
> Heard only in the trances of the blast,
> Or if the secret ministry of frost
> Shall hang them up in silent icicles,
> Quietly shining to the quiet Moon.
>
> (lines 66-75; my emphasis)

The world literally changes for Coleridge's child: it becomes a place where "all seasons shall be sweet to [him]", because he has an understanding of nature that can only result from living in harmony with nature.

5 Conclusion

Ecocritics have shown how something usually deemed insignificant, or disregarded altogether, like the weather, can determine something as significant and important as one's ideology. This can be explained within a chaos-theory framework: a small initial change in views or thoughts on nature may culminate in a significant change of world view. This is explored and expressed in the poem both thematically in Coleridge's speculations on his child's future and in the construction of repetitions and images. The poem itself can be seen as an ecosystem, symbolic of the complex interaction between humans and nature. On a thematic level, Coleridge's view of nature determines how he sees the future of his child. Stated differently, by changing his child's initial conditions, Coleridge hopes to change the course of the child's future: he hopes that his child will have divine knowledge and that his future life will be happy and in harmony with nature. The idea that initial changes are important is echoed in the near repetitions and images that he employs in this poem. In the repetitions that he uses, the changes in the second part of the repetition emphasise the importance of the small changes, and simultaneously mimic or repeat nature. The repetitions in the poem function much like fractals in nature. They can be seen as fractals of both the structure of the poem and of nature. The preclusive images that Coleridge uses create a vagueness surrounding the realm and introduce the sublime into nature, making the reader aware of the fact that nature eludes our grasp. Tapping into Coleridge's world view and specifically into his ideas regarding the immensity of the world, and drawing on insights derived from chaos theory and ecocriticism, one may argue that a changed view of nature may have far-reaching consequences. Coleridge's view of nature is admirable: it is a humble view of nature where humans are overwhelmingly aware of the fact that nature is beyond understanding, and where they yearn to live in harmony with nature.

Chaos theory has taught us that predictions are virtually impossible in a complex system. Coleridge's predictions for his child, Hartley, did not come true. Instead, Hartley repeated many of Coleridge's bad habits, such as addiction. Nonetheless, Coleridge's world view as expressed in "Frost at Midnight" is the correct frame of mind to think about nature in a posthuman world. It is a view that propagates a non-exploitative symbiosis between nature and humanity, where the mystery of nature is valued and where we acknowledge that we do not know everything regarding nature. It is a view that starts and ends with nature, a view that pays close attention to natural processes and that views humanity as part of those processes.

References

Anon.
2006 Chaos Theory.
Online: Wikipedia. <http://en.wikipedia.org/wiki/Chaos_theory>.
Accessed on 20 November 2006.

Ashton, R.
1996 *The Life of Samuel Taylor Coleridge: A Critical Biography.* Oxford: Blackwell.

Bate, J.
2000 *The Song of the Earth.* London: Picador.

Bogard, W.
2000 Distraction and Digital Culture.
Online: <www.ctheory.net/articles.aspx?id=131>.
Accessed on 3 August 2006.

Coleridge, S.T.
2000 *The Major Works, Including* "*Biographia Literaria*", edited by H. J. Jackson. Oxford: Oxford University Press.

Felluga, D.F.
2000 A Guide to Literary Terms. Online:
<http://web.ics.purdue.edu/~felluga/guide337.html#conversation>.
Accessed on 16 November 2006.

Rea, G.
2000 Chaos Theory: A Brief Introduction.
Online: <http://www.imho.com/grae/chaos/chaos.html>.
Accessed on 20 November 2006.

Roe, N.
1990 *Wordsworth and Coleridge: The Radical Years.* Oxford: Clarendon.

Sardar, Z. & Abrams, I.
2000 *Introducing Chaos*. Cambridge: Icon.

Scott, A.F.
1985 *Current Literary Terms: A Concise Dictionary of Their Origin and Use*. London: Macmillan.

Serres, M.
2006 Revisiting "The Natural Contract", translated by A.M. Dibon. Paper presented to the Institute of the Humanities, Simon Fraser University (Canada), 4 May.
Online: <www.ctheory.net./articles.aspx?id=515>.
Accessed on 3 August 2006.

Shipley, J.T.
1970 *Dictionary of World Literary Terms: Forms, Techniques, Criticism*. London: Allen & Unwin.

Frost at Midnight – S.T. Coleridge

The Frost performs its secret ministry,
Unhelped by any wind. The owlet's cry
Came loud – and hark, again! loud as before.
The inmates of my cottage, all at rest,
Have left me to that solitude, which suits
Abstruser musings: save that at my side
My cradled infant slumbers peacefully.
'Tis calm indeed! so calm, that it disturbs
And vexes meditation with its strange
And extreme silentness. Sea, hill, and wood,
This populous village! Sea, and hill, and wood,
With all the numberless goings-on of life,
Inaudible as dreams! the thin blue flame
Lies on my low-burnt fire, and quivers not;
Only that film, which fluttered on the grate,
Still flutters there, the sole unquiet thing.
Methinks, its motion in this hush of nature
Gives it dim sympathies with me who live,
Making it a companionable form,
Whose puny flaps and freaks the idling Spirit
By its own moods interprets, every where
Echo or mirror seeking of itself,
And makes a toy of Thought.

But O! how oft,
How oft, at school, with most believing mind,
Presageful, have I gazed upon the bars,
To watch that fluttering *stranger*! and as oft
With unclosed lids, already had I dreamt
Of my sweet birth-place, and the old church-tower,
Whose bells, the poor man's only music, rang
From morn to evening, all the hot Fair-day,
So sweetly, that they stirred and haunted me
With a wild pleasure, falling on mine ear
Most like articulate sounds of things to come!
So gazed I, till the soothing things, I dreamt,
Lulled me to sleep, and sleep prolonged my dreams
And so I brooded all the following morn,
Awed by the stern preceptor's face, mine eye
Fixed with mock study on my swimming book:
Save if the door half opened, and I snatched
A hasty glance, and still my heart leaped up,

For still I hoped to see the stranger's face,
Townsman, or aunt, or sister more beloved,
My play-mate when we both were clothed alike!

Dear Babe, that sleepest cradled by my side,
Whose gentle breathings, heard in this deep calm,
Fill up the intersperséd vacancies
And momentary pauses of the thought!
My babe so beautiful! it thrills my heart
With tender gladness, thus to look at thee,
And think that thou shalt learn far other lore,
And in far other scenes! For I was reared
In the great city, pent 'mid cloisters dim,
And saw nought lovely but the sky and stars.
But thou, my babe! shalt wander like a breeze
By lakes and sandy shores, beneath the crags
Of ancient mountain, and beneath the clouds,
Which image in their bulk both lakes and shores
And mountain crags: so shalt thou see and hear
The lovely shapes and sounds intelligible
Of that eternal language, which thy God
Utters, who from eternity doth teach
Himself in all, and all things in himself.
Great universal Teacher! he shall mould
Thy spirit, and by giving make it ask.

Therefore all seasons shall be sweet to thee,
Whether the summer clothe the general earth
With greenness, or the redbreast sit and sing
Betwixt the tufts of snow on the bare branch
Of mossy apple-tree, while the nigh thatch
Smokes in the sun-thaw; whether the eave-drops fall
Heard only in the trances of the blast,
Or if the secret ministry of frost
Shall hang them up in silent icicles,
Quietly shining to the quiet Moon.