

Between Codes and Palimpsest: Stefanie Strickland's *Dragon Logic*

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Abstract

This article will study the impact of programming languages on poetic language in Stephanie Strickland's print poetry collection *Dragon Logic* (2013). In this article, I argue that *Dragon Logic* not only ponders on the changes that occur in contemporary literature with the invasion of digital technologies, but it also articulates via the use of the print form certain concerns relating to the electronic, and finally helps readers reinvent the way one reads a print book. This article follows the theoretical insights provided by N. Katherine Hayles about the connection of natural language and computer code, as well as the different reading practices that are brought forward by computation. Through a selection of close readings of poems in *Dragon Logic*, I will discuss the layering of codes and how this layering affects the ways natural language is informed by programming language via feedback loops, a process that by extension influences not only human readers but also reading machines.

Keywords: natural language, palimpsest, code, computation, reading practices.

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Published in 2013, *Dragon Logic* is one of Stephanie Strickland's solely print projects. In contrast to her other projects, like *True North* (1997) and *Zone: Zero* (2008), *Dragon Logic* is a print edition that is not accompanied by an online site or a CD-ROM. In her online review for *Jacket2*, entitled "Code as Such," Orchid Tierney argues that *Dragon Logic* constitutes Strickland's "boldest gesture to date towards the extreme limits of the known universe, one that significantly broadens the limited perception of our ecology to include the virtual interfaces, imagined presences, and online architectures." Drawing on N. Katherine Hayles' theory about the connection between language and code, and through a selection of close readings of poems in *Dragon Logic*, this article will discuss the layering of codes. It will look at how this layering affects the ways natural language is informed by programming language via feedback loops, a process that by extension influences not only human readers but also reading machines.

In the "Author Statement," Strickland's online interview on Ahsahta Press' website, she explains why she has chosen the print medium for this particular project: "I [...] wanted to work with print pages – where words persist as a score for the poem resonantly heard – because that mode itself is under attack and facing rebirth." Despite its print format, *Dragon Logic* points towards digitality by seeking to explore the limits and nature of code in poetic space. In *Dragon Logic*, the print medium is indeed reborn through a system of feedback loops that create a multi-layering effect, a palimpsest of codes that range from the computational to the mythological discourses found in the work. For example, in the poem "BIRGITTA the Healer" the layers of codes resemble the number of people who appear in this poem from mythology,

religion, culture, philosophy, and the arts. This opens up the poem to a plurality of voices: “Birgitta the Healer / and *Graugans* the gray lag goose *Anser* / *anser* and Babalu-Aye / (Bab-ilu) gate of God / and the man who listened all the time / Nijinski (Vaslav) and / orisha Oya with that bit of buffalo / on her shin yet / and Simone who did ‘Fall, gall ... / and gash gold-vermilion’ as Father / Hopkins saw / – and Mister Rogers quiet” (*Dragon Logic* 18; emphasis in original). Strickland layers her poem with the figure of saint Birgitta, a patron of healing, with the next layer being the god of illness and healing. The religious references continue with Oya, a goddess of the storm and lightning in Yoruba religion, and Orisha, a Yoruba godly spirit.

In addition to religion, certain other layers are added, including philosophy in the references to Simone Weil, and the arts, with the information about the Russian ballet dancer and choreographer Vaslav Nijinski. The way Strickland creates the layers is through her coded poetic language that the readers are invited to explore. The addition of a computational layer is signalled with the word “lag” that not only refers to the greylag goose, but also derives from online gaming, signifying the delay between the action of the players and the reaction of the server. Code is not only restricted to the digital code, but also comes full circle in the codex, meaning the book. The codes are fed into the feedback loops that are created, which raises the reading subject’s awareness of the multi-layered and multi-coded fabric of language.

In *Dragon Logic*, Strickland makes use of the dragon concept as a means of illustrating the abstractions of our world. However, these manifestations of abstraction retain part of their aloofness, as Strickland points out in the “Author Statement”: “Dragons are mythical and abstract – mythic embodiments of abstract power, from the snake in Eden, to devouring sea monsters.” The abstract nature of the dragons is incompatible with narrative itself. Strickland argues that “[n]o narrative can compass the abstractions – they act in too many dimensions at once” (“Author Statement”) and this constitutes a significant reason for the failure of adopting a typical poetry reading for *Dragon Logic* since the impact computation has on it calls for a different kind of reading.

On the unusual structure of *Dragon Logic*, Strickland claims that her whole book “is a flow of active layering that hums along from one untitled poem to the next, interrupted by a few titled poems, raising their heads like islands, and by two poems that sink to the very bottom of the page, including the reverse invocation for erasure at the end” (“Author Statement”). The flow she refers to can be felt in the transition from one section of the book to the next. With the dragon constituting the backbone of her poetry collection, Strickland reflects on the semantic instabilities that dragons’ appearances create. In the book’s contents page, the reader comes into initial contact with the sections that are named after different kinds of dragons. From the “e-Dragons,” the reader moves to the “Sea Dragons,” then confronts the “Hunger Dragon of Unstable Ruin,” and navigates the “Dragon Maps” before reaching the section “Alive Inside the Dragons.” Each one of these sections can be read independently, but all of them are conceptually abstract. With every poem being different from any other in the collection, their diverse structures allow Strickland to experiment with the way line spacing, typography, style, and format work.

Despite its print format and the apparent fixedness of its material pages, *Dragon Logic* is not cut out to be read as a standard print poetry book because of how digitality affects the way it is written, and demands a rather combinatorial way of being read that takes into account the impact of computation. At the same time, the poetry collection pushes readers' limits with its density of codes that coil around the poems. Strickland argues that the attention span for print literature is deep and focused: this "is what print readers are trained to have, but attention itself is being reshaped, becoming a mix of deep and hyper, or focused and mobilized" ("Author Statement"). *Dragon Logic* does not call for a regular way of deep reading, but it welcomes a mix of reading strategies. Hayles' *How We Think: Digital Media and Contemporary Technogenesis* (2012) outlines the concept of hyper reading and discusses the various types of reading that have emerged due to the impact of digital technologies.¹ Hayles introduces hyper reading while explaining that it is "often associated with reading on the web" (24) and "includes skimming, scanning, fragmenting, and juxtaposing texts" (25) in contrast to close reading that correlates "with hyper attention, a cognitive mode that has a low threshold for boredom, alternates flexibly between different information streams, and prefers a high level of stimulation" (25). Considering Hayles' words, one can assume that hyper reading in today's digital environments is unavoidable. Strickland explores hyper-linking and hyper reading in her attempt to combine certain computer and book traits, as evidenced in her print poetry collection *Dragon Logic*.

Although *Dragon Logic* is a print book, the poems assume the structure of the feedback processes performed by computer code. In her essay "Born Digital," Strickland points out that electronic literature "is a result of feedback processes between humans and machines, between human intelligence and machine intelligence." Strickland argues that the "boundaries between digital and physical are porous, dissolved, and press toward becoming non-existent" ("Author Statement"). In the reading of *Dragon Logic*, as in the reading of electronic literature, the reader "must, in many respects, become a metareader, reading her reading, her reaction to this new reading condition in order to experience the work fully, to judge where the activity and point of work lies" ("Born Digital"). What this highlights, as to the way *Dragon Logic* is constructed, has to do with the multiple layers of codes that the reader has to explore.

Strickland realizes that while, on the one hand, the eyes are far more susceptible to visual seduction and thus less reliable on the other hand, the ear constitutes "the most discriminating native resource. Finding resonant connections is possible, even as explanation-stories fail and fade" ("Author Statement"). Although the semantics of words may not make sense, it is how the words sound that facilitates meaning. The closing poem in the collection, "UNSOLVED PROBLEMS" illustrates very effectively the importance of language's sonic elements. The division of sound into meaningful units is juxtaposed to the demarcations to which the virtual world is

¹ Hayles validates her argument by referring to scientific evidence "that hyper reading differs significantly from typical print reading, and moreover that hyper reading stimulates different brain functions than print reading" (*How We Think* 73).

subjected: “in a world divided / into what *can* be divided / without / damage magnitudes metrics ...) // what cannot? / what if divided changes its nature?” (*Dragon Logic* 97; emphasis in original). These lines highlight the inability of code to pass as a natural language since the latter cannot endure the demarcations to which the first is usually subjected. Both natural language and machine-code function differentially and that is a point of contact between them. However, machine processing of various signifiers for the execution of unambiguous instructions differs from human meaning production that depends on the productivity of ambiguity and resignification. Taking into consideration the fact that code consists also of alphanumeric signs, one realizes that, when it encounters language, certain reciprocal changes occur. However, what differentiates language from code has to do with how these two are brought together, what kinds of patterns they form and who the recipient and decoder of these combinations might be.

Hayles points out the role that the transition from speech to writing and the digital as well as the separation of this process into meaningful units plays. She states “From a continuous stream of breath, speech introduces the discreteness of phonemes; writing carries digitization further by adding artifacts to this physiological process, developing inscription technologies that represent phonemes with alphabetic letters” (*My Mother* 56). Code constitutes an outcome of this process, but where exactly does the human subject stand? Strickland suggests through “UNSOLVED PROBLEMS” that only by relying on sound and listening will the human subject be able to distinguish natural language from code: “*obedience* : not ten-hut / military / rather *ob-au-di-re* (hear ... thoroughly)” (97; emphasis in original). This line indicates that by listening “thoroughly” and paying attention to detail and the nuances they trigger, one will be able to appreciate the specifics of language and reconnect with its sounds, syllables, and letters. What is more, Strickland adds that meaning is not lost altogether since it is interchangeable with sound: “Sound is sense – semantic meaning is always also found, not only impossible to shut out but intended [to] multiply along various channels. We are woven into the mesh, fabric, harpstrings of a world newly stretched between subatomics and cosmic reach, a new instantiation of the wind harp [...] on which aliveness is woven” (“Author Statement”). Strickland’s various channels are none other than the codes that she braids into a sonic fabric that is here combined with the corporeal feel the print book emanates.²

Throughout her book, Strickland unleashes her readers into a dragon hunt, but the hunt that matters to her “is tracking the beast as it slips, dizzyingly, from real to configurational (electronically generated) space, always aware that where we live, in either case, is the belly of this beast” (“Author Statement”). Like dragons, codes glide between what we perceive with our senses and what escapes us; just because we are not able to see them does not mean they do not exist. In *Dragon Logic*, Strickland attempts to make these codes tangible. In her entanglement of codes, Strickland confesses that she does not “attempt to convey the mathematics of the math or the

² Given Strickland’s attention to sound in *Dragon Logic*, one could also make a connection to *Dragon Dictation*, the speech recognition software that Apple developed in 2009.

code of the code, but rather to give some sense, in natural language, of what might be happening there" ("Author Statement"). The poetic value of her project lies in this rendition into natural language, revealing the multiplicity of discourses these codes create in relation to poetry. What this reveals about poetry as a means of experimentation and artistic practice has to do with its ability to interconnect and converse with other disciplines as well as with its malleable language material.

In *Dragon Logic*, the codes that form networks are not only locked in a feedback loop system; they also create palimpsests. In her book *The Palimpsest: Literature, Criticism, Theory* (2007), Sarah Dillon introduces the term "palimpsestuousness" to indicate "a simultaneous relation of intimacy and separation" (3). For Dillon, palimpsestuousness is a model that preserves "as it does the distinctness of its texts, while at the same time allowing for their essential contamination and interdependence" (3). Dillon's observation facilitates a visualization of the multilayering effect that Strickland attempts to build on the level of codes, with individual speech, as well as intertextual and cultural references. Strickland overlays in *Dragon Logic* a variety of "codes" ranging from physics, architecture, and mathematics as well as from different historical periods – from antiquity until the present age of electronic technologies. The web of codes is clearly illustrated in the penultimate section of the book that is dedicated to the "Codemakers." In this section, Strickland invites her readers to wonder about the identity of codemakers who are able to come up with ways of framing and creating meaning. The "Codemakers" section refers to important code makers, who are all listed in an alphabetical and not a chronological order. This section constitutes a small-scale model of the structure of *Dragon Logic* in its entirety that is layered like a palimpsest, with the chronological layers being erased and superimposed by the alphabetical layering. Just like the layers of a palimpsest, temporal barriers do not separate the codes and their makers in this section. Instead, they are presented together, as is the case for example with Archimedes, Beatrix Potter, Persephone, Alan Sondheim and Jimi Hendrix, who are all mentioned in the text. The palimpsestic structure, however, that is employed here is based on a simultaneous practice of erasure and inscription, a practice that allows diverse connections between the information contained in it to emerge. The palimpsest's special quality of not erasing completely but retaining some portion of the original pieces of information contained in it promotes a much more flexible conceptualization of time.³

In her book *My Mother Was a Computer: Digital Subjects and Literary Texts* (2005), Hayles brings to our attention the degree to which computation has infiltrated the processes out of which meaning is made, and how it has influenced our

³ According to the *Longman Dictionary of Contemporary English*, the palimpsest is "an ancient document on which the original writing has been covered over with new writing." In her book *The Palimpsest: Literature, Criticism, Theory* (2007), Sarah Dillon argues that the term "palimpsest" is implicitly related to palimpsests, which until 1845 were paleographic oddities of concern only to those researching and publishing ancient manuscripts. However, the concept of the palimpsest exists independently of such phenomena – it is a strange, new figurative entity" (1). The figurative quality of the palimpsest allows us to use it metaphorically, as a concept that underlines the dynamic relationship between various layers of information.

understanding of materiality: “I like to think of materiality as the constructions of matter that matter for human meaning. This view of materiality goes hand in hand with what I call the Computational Universe, that is, the claim that the universe is generated through computational processes running on a vast computational mechanism underlying all of physical reality” (3). Taking into account the founding value of computation, one comes to realize that “code assumes new importance as the lingua franca of nature” (8). Such an argument, however, should not suggest that code and natural language establish a binary opposition. On the contrary, Strickland’s *Dragon Logic* reflects on the limits of a binary approach in which language is treated as a series of discrete elements by pointing out the feedback loops that connect natural languages and code. Hayles traces those feedback loops in the transitions from speech, to writing, to code and in the way that they interact with each other (*My Mother* 39). What is more, Hayles argues that each one of “these three major systems for creating signification” carries with it “its own worldview, associated technologies, and user feedback loops. In the progressions from speech to writing to code, each successor regime reinterprets the system(s) that came before, inscribing prior values into its own dynamics” (39). Strickland’s *Dragon Logic* contemplates the gaps that exist between those re-inscriptions in speech, writing, and code. In addition, due to its print format, *Dragon Logic* enables an understanding of code beyond digitality while it highlights its capacity to enclose other elements inside its structure in a similar manner to what the palimpsest does.

As a result, with *Dragon Logic* Strickland stresses the need for contemporary poetry to address current issues and concerns, namely the challenges that computation poses in relation to literature and, in particular, to poetry writing. Such challenges are utterly connected to the very practices of reading and writing, and most importantly to existing preconceived ideas connected to them: Is the machine or the human the primary reader? On the reading of code by the machine, Strickland points out that this happens in loops: “The machine reads code line by line, all in one frame or on one long page [...] As the machine reads, line by line, it may be told to jump its reader somewhere else temporarily before returning to its departure point (as rhyme does, too, in another way). Although the machine reads line by line, all of its reading happens within loops” (“Dovetailing”). These “loops,” illustrated in the poem entitled “UNTIL recently considered not writing,” address the dual readership of code and imports mezangele – a language invented by Mez (Mary Anne Breeze) that blends English and coded symbols – where poetic language mixes with language used in chat rooms and pseudo-programming: “>][*.mez][says,”Sue, 4 lnce I managed 2 sit back & ab.sorb rather/>than prattle on :)” (*Dragon Logic* 17). The use of brackets in the text sequence is reminiscent of the way computer commands are notated in an algorithm. The difference is that a human reader, and not a machine, is expected to read it and interpret it. For example, readers can choose to read “4” as a number or as the preposition “for,” which multiplies the conceptual alternatives that may emerge out of computational-like language.

A similar effect can occur with the insertion of textual MOO fragments in Strickland’s poems that shows that the mingling of semantics of code with the

semantics of natural language through an invented pseudo-code can be read as written natural language.⁴ Taking into account that some of the main differences between language and code are, as Hayles points out, “the multiple addresses of code (which include intelligent machines as well as humans) [and] the development of code by a relatively small group of technical specialists” (*My Mother* 15), one can understand that reading is perceived here as a reciprocal activity between humans and machines. By thus opening up to the mechanics behind code writing and combining it with figurative language as evidenced in the poem “UNTIL recently considered not writing,” Strickland brings code to a wider readership. It simultaneously draws attention to the performative aspect of code reading, meaning how code is executed or, in other words, how it can be read or performed by a machine. What is more, in this kind of writing, the poetic effects can be obtained from the simultaneous processing of two systems of encoding – alphabetic writing of words and alphanumeric writing of coding symbols.

Strickland reflects on the limits of code and points out that lines of code cannot run in parallel with poetry's written lines: “One cannot program two lines of code and have them run in parallel, which of course the written line of poetry *does* do, summoning its graphic and sounded aspects together. To do this in code, two lines need to be coded, and called, from one distinct point in the program so that they can run in (pseudo)parallel” (“Dovetailing”; emphasis in original). The print medium has the ability to run more than one line, and Strickland's *Dragon Logic* manifests this simultaneous reading of poetry as code and code as poetry, as evidenced in the poem “UNTIL recently considered not writing.” Hayles argues that despite the fact that “code originates with human writers and readers, once entered into the machine it has as its primary reader the machine itself” (*My Mother* 50); while for the machine to be able to make sense of code there should be “little if any ambiguity” (46). Complexity and ambiguity in the machine as perceived by a human being can be attributed to the layering of its programming languages, and this layering effect is what the poems in *Dragon Logic* point towards.

On the code's lack of ambiguity, Strickland takes the “bit” as an example to illustrate the difference of code writing from poetry writing: “The bit, in code, is a unit of information having just two possible values, 0-not-1 or 1-not-0. All meaning derived from code is controlled in an unambiguous line of instructions directed to manipulation of those bits and their physical correlates, usually gates allowing electrical current to flow or not” (“Dovetailing”). The repetitiveness of “bit” in code brings to the fore the ability of natural language to connect, twist, and mix with coded language, something that code cannot do by itself. The “bit” in poetry forms its own metrical rules in contrast to the “bit” in code that follows a computer predetermined path. However, in *Dragon Logic*, the “bit” in code complements the “bit” in poetry: “By contrast the ‘bit’ in poetry is notational and elusive, an effect occurring at one

⁴ In his entry “MUDs and MOOs” in the volume *The John Hopkins Guide to Digital Media*, Torill Mortensen explains that “[t]he abbreviation *MUD* stands for Multiple-User Dungeons/Domains, while *MOO* is a version of this called Multi-User Dungeon, Object Oriented” (341; emphasis in original).

exact moment, which can be felt or performed, though not necessarily repeated” (“Dovetailing”). What this shows is that there is flexibility in poetry that contradicts the rigid repetitiveness of code, which is what my reading of the poems from *Dragon Logic* will attempt to demonstrate.

A requisite component of code is algorithm, which, according to Bethany Nowviskie, is defined as “a finite and generalizable sequence of instructions, rules, or linear steps designed to guarantee that the agent performing the sequence will reach a particular, predefined goal or establish incontrovertibly that the goal is unreachable” (1). Strickland’s poem “ALGORITHM” integrates in its structure the basic meaning of algorithm, it is used as a “[re]cipe” and set of “[i]nstructions” on how to introduce ambiguity to the machine and intertwines thus the computational process with poetic language: “twiddle [de dee] tweak [de dum]” (*Dragon Logic* 14; emphasis in original). This intertextual reference to Lewis Carroll’s *Alice’s Adventure in Wonderland* (1865), combined with the bracketed computational code, constitutes a point of feedback loop that illustrates the merging of literary with coded language. Hayles points out that “[c]ode has become arguably as important as natural language because it causes things to happen, which requires that it be executed as commands the machine can run” (*My Mother* 49). This observation can be understood when seen alongside “ALGORITHM” and the kind of commands, such as “execute / run repeat” (*Dragon Logic* 14), it resorts to.

The lines “map a metaphor or more / to computational process [not / to *compositional* / capiche?]” (*Dragon Logic* 14; emphasis in original) attempt to bridge the code’s causality with poetry’s ability to build worlds out of language, bringing together in this case both natural with computational language. In particular, Strickland orders the machine to “map a metaphor” and treats it as a person asking it whether it understands “capiche?” and clarifies that it needs to be a “computational process[...].” instead of a “*compositional*” one (14; emphasis in original). In this way, the processes of natural language affect the machine and it is our understanding of how code is written that is influenced by poetic language. This undermines the conclusiveness inherent in algorithmic presentations as we find them in software programming manuals. The ability of computer commands to trigger multiple structural and linguistic combinations reveals their dynamic and poetic quality in their ability to create flexible language patterns. This is exactly what Strickland’s “ALGORITHM” suggests: the human processes of linguistic invention can also be modelled and conceived in computational terms, but with a twist.

However, when code is encountered in a text, it creates confusion and ambiguity that results from the way it is layered. Hayles argues that “[i]n the worldview of code, it makes no sense to talk about signifiers without signifieds. Every voltage change must have a precise meaning in order to affect the behavior of the machine; without signifieds, code would have no efficacy” (*My Mother* 47). What Hayles points out here is that there is a one to one correspondence in code, meaning that ambiguity is impossible. The slip of the signifier under the signified that postmodern theories brought forward by Jacques Derrida and other post-structuralists is inconceivable in computer code. Strickland’s “ALGORITHM” challenges this argument, since she

attempts to give code the ambiguity inherent in natural language. The layering of programming languages in a palimpsest manner can supersede the obstacles that code poses. Hayles adds that the deeper the layers, “the closer the language comes to the reductive simplicity of ones and zeros, and yet it is precisely the ability to build up from this reductive base that enables high level literariness to be achieved” (53-54). In other words, one can actually see the various components of the coded language Strickland uses since it is made out of both natural and computational elements.

Taking into consideration that in physics, light is a carrier of information, in the poem with the title “IN that shot they take” code is written in the form of light woven into a photo. To begin with, the poem outlines the operation of how a lakeside landscape is seen by either a pair of human eyes or a photographic lense during nighttime. Being preoccupied with the way light affects our understanding of and connection with time and space, the poem attempts to capture the kind of reflections light triggers: “IN that shot they take / on the water at night from a rowboat” (Strickland, *Dragon Logic* 21). The use of multiple perspectives – “light from the moon is older / than light from the trees / light from the lapping / shore’s grassy wash older than light / from the fish-jump near their oar” (21) – creates a layering effect with each one constituting an instance of time. Strickland manages to write a whole history by giving age to the individual pieces of information carried by the light particles – the photons – and supplying a dynamic chronology to an otherwise static photographic shot by extracting “a tissue of histories” (21). In contrast to the eyes or the photographic lense that can be closed, the “histories” do not remain “snapped shut” but stay open, accessible and connected to each other. The last line of the poem proposes to “photo ‘the whole’ lake” (21), to write down the photons and information of “‘the whole’ lake” and capture the history through the lines of code that photons provide. The different layers of time as found in the lights encourage us to “feel” the lake and “know” that it is there (21). With this poem, Strickland encourages us to contemplate on the amount of information that exists even in an instance of time and how interwoven the elements that make out the organic matter that surrounds us are.

The importance of light and vision are also found in the poem entitled “CCD a way to see device unrelated to sight.” In this poem, Strickland, through her references to intricate technological practices, as is the case with the CCD device, and established literary figures, as with Homer, comments on the senses her poem attempts to trigger.⁵ The reference to Homer in particular serves as a tribute to the oral aspect of poetry and its mnemonic potential since it has to be remembered in order to be recited. The CCD device is image-capturing technology similar to a film camera where the data the device detects turn into images through a series of technological processes. Both the poet (Homer) and the machine (the CCD device) “count and remember count and remember” (Strickland, *Dragon Logic* 8). So again, here an attempt is made to link the human capacity to think, make, and create with the way a

⁵ Moshe Moshkovitz points out that CCD stands for “Charged coupled device” and defines it as a “light-sensitive device that transforms light into voltage and stores samples of analog signals. In practice, CCDs convert the image coming from the lens into video signal” (29-30).

machine works, exposing in this manner the engineering potential of both processes at work.

In addition, in this poem, a connection between the qualitative world and the quantitative description of the world is established, with the first one related to what is to be seen, and the latter one to the process of seeing. The CCD device is not able to see the qualitative “brightness” of the world, but it can translate it into numbers and manages “to catch brightness” with “a grid of numbers” in “an array” (*Dragon Logic* 8). Apart from the allusion to Homer, in this poem there is also a literary reference to Johan Wolfgang von Goethe in the words “*mehr Licht*” (8; emphasis in original) – meaning more light – that he uttered just before he passed away. With the word “*mehr*” denoting quantity, the CCD device receives more and more light. As it is brought forward in the poem, the light does not need a human, because the machine sees it, an actuality that makes it superior to the human. While the human with the means of analogue photography’s “emulsion takes down 1 in a 100 photons” the CCD device far outsmarts the human as it manages to take down 90: “CCD : 90” (8). Being able to receive more and more light and thus more wisdom, knowledge and enlightenment, the CCD device has the additional ability to capture the entire electromagnetic spectre: “Bing Bang // radiation residue every ray from radio to gamma” (8). The machine is also “post-person,” it does not need a human in order to see, it is “fast” cheap” and “out-of-control,” it is “pen-less” and thus not a poet and “visionless” (8) because the CCD device does not need the seeing sense in order to see. Despite the ways in which the CCD device outsmarts the human, it is caught in an inescapable loop of electrons “pouring in / kicking out” (8), unable to differentiate between quality and quantity.

The poem with the title “FIREFLIES arriving moon green,” addresses the process of coding messages into light and sound waves. The poem opens with a description of Paul DeMarinis’ installation “Fireflies Alight on the Abacus of Al-Farabi” that communicates the first waves of light, as the fireflies are “flashers on the Abacus of Al-Farabi” (*Dragon Logic* 4). The little notes in the wire of the installation dissolve the messages in waveforms: “electrochromic mirrors’ dissolving / messages” (4). On his website, DeMarinis points out that his installation “centers on a visualization of the oldest music-theoretical device, the monochord, used since the times of Pythagoras to study and explain the mysteries of sound, music and universe” (“Fireflies Alight”). Strickland uses DeMarinis’ imagery, which is a visualization of a musical device, to demonstrate through poetic language the ability to layer multiple codes. The next part of the poem focuses on the way the human body can decode the messages that pour through a hole in the “earlid eyelap lingual / lobe” (*Dragon Logic* 4). The use of particular body parts, such as “earlid” and “eyelap,” reinforces the connection there is with the way information infiltrates through the body in order to be processed by the brain. Once the message has been decoded, the next step involves its transmission: “streamed transmission signals speech waste sails / to the stars beyond detection” (4). The message is written in radio waves that get lost from the Earth, they become waves that no one can detect. The word “[s]ilence” that follows in the next stanza reinforces the reachability of the message as something inaccessible

because of the perpetual silence in the universe. Although humans can understand meaning encoded in light and sound waves, it can be lost and dissolved into space.

The poem entitled “AND of course it is,” layers various codes about the definition of beauty. The whole poem reads as an excerpt taken from a conversation, and the second interlocutor is invoked as “you” throughout the poem. Both the speaker and the second interlocutor attempt to define what beauty is, and the first definition involves the perception of beauty as sound: “AND of course it is / a wave a sound broken into bits / threaded through numbers” (Strickland, *Dragon Logic* 9). Beauty is also perceived in the context of architectonic beauty and its ideal and perfect proportions as found in buildings that are symbols of beauty: “you will take me to mean / nautiline spirals / Florentine chapels Doric temples / al-Hambran Taj Mahalian / symmetries Persian figures” (9). Other codes are also braided together, as shown in the following line, brought forth from different contexts that determine beauty as a strict biological phenomenon that is ephemeral and subjective: “or will you understand it as / the undecidability / between code and capital / the immaterial bio-economy / essence of bio-information / packaged in crystal hint of jasmine” (9). The stars and their movement also determine beauty as an ideal: “no you are a fancier of stars / you think Arecibo mega array / the billionsfold / data re-splayed quintillionfold” (9). Here, the interlocutor is presented as a pragmatic person that possesses a giant telescope to perceive the beauty of stars. However, the speaker points out that the interlocutor is too distracted to define beauty in the last stanza. The speaker orders the interlocutor to have “eyes forward” to turn the gaze away from the distractors of beauty: “video macro attractors CNN / blog minis all pull all / seduction neural icon / image flux the real” (9). A window of opportunity is left open for these distractors to form their own code as they “flux the real” (9), thus bringing a state of constant change to reality, affecting the openness of the palimpsest of the codes that have formed around beauty.

In the poem bearing the title “OPENING hands of clock time,” Strickland draws on the graphic representation, as the grapheme \vee indicates, of the lightcone – a concept of astrophysics relating to the perception of signals in time and space. In addition, the \vee symbol carries the meaning of a logical disjunction “or” that is represented as a graphical form in the first stanza and as the word “or” in the second stanza. The symbol encourages the reader to alternate between its various meanings such as the opening hands of a clock or a bird’s open wings. We understand that Strickland resorts to the use of an image-driven coded language able to trigger multiple connotations resulting from the way information can be combined or read. In the line, “master-church slave-monk obedient / cipher scriptor in a cell executing tone / by rope (1010 is 10 in binary – a semi- / extraneous sidebar (inline) here)” (Strickland, *Dragon Logic* 13), language triggers multiple effects that can communicate different sense impressions that are not necessarily semantically related. Whereas the analog clock hands create a sense of openness in the position of ten o’clock, there is a feeling of stricture that words such as “slave-monk,” “obedient” or “binary” create. As for the opening of the two lines in grapheme \vee , it may also evoke

a sense of openness similar to the image of birds flying. All these layers of suggested meaning emphasize the extent to which coded and natural language can work together.

As such, it should not come as a surprise that the entanglement of language and code affects the materiality of language, either natural or computational. Hayles suggests, “strong claims have been made for digital algorithms as the language of nature itself” (*My Mother* 15), with computation featuring as “the means by which reality is continually produced and reproduced on atomic, molecular, and macro levels” (3). This is vividly illustrated in the poem “RARA AVIS,” which mingles Strickland’s own words with those of Eduardo Kac’s, the poet and practitioner of electronic literature. Kac points out that “Rara Avis is an interactive telepresence work in which local and remote participants experienced a large aviary with 30 birds from the point of view of a telerobotic macaw.” Strickland’s “RARA AVIS” explores and challenges the physiological boundaries in the way different entities “enter each other” as the “not the old vicarial / Holy Communion” or “nor the older / surgery / pregnancy / sex [...] share / the same / (telematic) co-ordinates [...] via circuitry and hardware” (*Dragon Logic* 10). People come to share an “augmented body” (10), merging thus the virtual and physical world into one as the human body merges with the machine and the computer into one entity. The poem “RARA AVIS” poses the question of what real and virtual feels like, what is organic or non-organic as the following line reveals: “vicarial lure vampiric pull past skin body in body” (11). The way language works here brings to mind Hayles’ point when she writes about the “[c]omplex feedback loops [that] connect humans and machines, old technologies and new, language and code, analog processes and digital fragmentations” (*My Mother* 31). As a result, Strickland’s *Dragon Logic* uses a palimpsestic structure that makes us look at the networked way various connections are established that are far from binary. Under this light, natural language and code, as well as human and machine, continually inform each other. Poetic practice provides the context within which these processes are demonstrated and, to a certain level, within which they remain intelligible to the human reader.

In conclusion, this article has explored *Dragon Logic* – a print poetry collection – whose focus is the “dragons” that surround our everyday life, dragons that vary from the computational to the mythological. In this poetry book, the relation between natural and programming language is based on feedback loops, since they reflect on each other, the one revealing the limits of the other as well as the potent hybrids they are capable of creating.

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