


## The Brain Is Deeper Than the Sea: Sea and Spar Between, Computational Stuplimity, and Fragmentation

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This article discusses *Sea and Spar Between*, a long computational poem by Nick Montfort and Stephanie Strickland (2010). The poem's length prevents human readers from reading it completely. I argue that although the poem's global inaccessibility raises complex interpretive problems, we can surmount them by applying multiple interpretive modes to a single textual fragment, thereby meeting the fragmentary text with a fragmented critical discourse; the idea being that a more coherent theoretical apparatus would, in its latent totalizing impulse, be intrinsically unsuited to a fragment's incompleteness. I use this technique to read *Sea and Spar Between* through various lenses including, *inter alia*, cosine similarity, affect theory, and code. I conclude with a website that reimagines the poem by populating its sea with language from the critical literature on the poem. Like *Sea and Spar Between*, this website cannot be circumnavigated by human readers and so enacts this article's solution to the problem of how to read computational poems that cannot be read completely: to interrogate the assumptions that cause us to view unreadability as a problem, and to embrace incompleteness as a source of critical insight.

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### Approaching a whole through a part of its parts

Against a light blue background — a visual metonym for the titular sea—*Sea and Spar Between* consists of an “immense lattice of stanzas” that combine the “distinguishing textual rhythms and rhetorical gestures of Melville and Dickinson” [Montfort and Strickland 2010] [Montfort and Strickland 2013]. The stanzas are comprised of a subset of the union of the words in Herman Melville's *Moby-Dick* and Emily Dickinson's poetry. The words are combined and recombined by the poem's code in a manner that moves the language back and forth between the compressed interiority of Dickinson's poetry and the expansive intensity of Melville's prose. The poem's words flicker and change as the reader's mouse navigates the sea, like the water disturbed by a prow moving through waves. At the bottom of the screen is a search bar, where the reader can enter coordinates to move to a specific location in the sea; each stanza in *Sea and Spar Between* has, and is locatable by, two unique coordinates, which Montfort and Strickland conceptualize as latitude and longitude. The set of latitude and longitude values both range from 0–14992382 inclusive, meaning that the total number of stanzas is 14992382<sup>2</sup>.<sup>[1]</sup>

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To write that *Sea and Spar Between* “consists” of a stanza-lattice is slightly misleading. This is partly because the word's Latin root means “to stand still or firm,” yet the critical literature on *Sea and Spar Between* repeatedly emphasizes the poem's instability.

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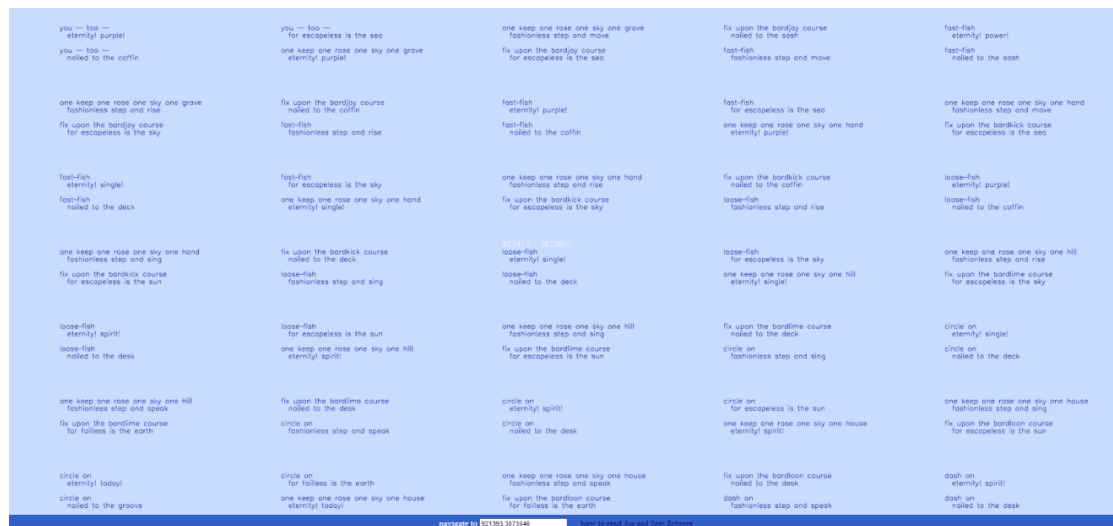


Figure 1. *Sea and Spar Between's* interface

Mainly, however, “consists” is misleading because the poem is impossible to read completely and, by extension, the reader cannot definitively identify the poem’s constituent parts. (By “impossible to read completely” I mean “impossible for a human to read completely”; a sufficiently advanced computer could parse the entire poem.) The poem is impossible to read because of its scale. Montfort and Strickland write: “*Sea and Spar Between* is a poetry generator which defines a space of language populated by a number of stanzas comparable to the number of fish in the sea, around 225 trillion” [Montfort 2016]. Its order of magnitude is therefore  $10^{14}$ , a length that makes *Sea and Spar Between* a nexus between one of poetry’s oldest genres (epic) and one of its newest (computational poetry), though here the *nostos* is incompletable and the hero, if there is one, is anonymous. To use the Melvillean language that the poem invites, its length transforms the reader into an Ahab surrogate, and the text into an analogue of the white whale, though the pursuit of the latter by the former is indefinitely prolonged because, as Stuart Moulthrop and Justin Schumaker write, a “complete reading” of the poem “would take more than 200 million years” [Molthrop and Schumaker 2016, 135]. To appreciate the Sisyphean nature of reading *Sea and Spar Between* more fully, observe that a reader who has read 225 stanzas has only read  $1e-10\%$  of the poem. Given the impossibility of completely reading *Sea and Spar Between*, then, the question becomes whether it is possible (and if so, how) to extrapolate an accurate sense of the poem’s architectonic whole from its fragments. Although reconstructing the lost general from the extant particular is a common task in disciplines such as archaeology, it is an alien task to the readers of contemporary poetry, where the dominant genre, lyric, is characterized by structural intelligibility (because lyric poems are conventionally brief). Moreover, as Joseph Frank writes, “modern poetry asks its readers to suspend the process of individual reference temporarily until the entire pattern of internal references can be apprehended as a unit” [Frank 1945, 230]. But in texts with largely unfathomable (because unfathomably large) referential patterns, this process of referential suspension is drastically extended, which effectively makes it impossible to apprehend “the entire pattern of internal references” [Frank 1945, 230]. In such cases, Stuart Moulthrop asks, how “do we choose configurations of output to serve as representations of the work or objects of study?” [Moulthrop 2017]. One way of answering Moulthrop’s question is to look to classical studies. Due to the fragmentary state of much of the Greco-Roman corpus, classicists have also had to confront the question of how to interpret splinters of output from inaccessible signifiers. Although the separation of classical textual parts from their original wholes is due to the historical vicissitudes of textual transmission, whereas the separation of *Sea and Spar Between's* parts from its whole is due to a contingent aesthetic decision by its author-programmers, the consequences are identical: our tacit assumptions about what it means for a text to be complete are foregrounded, and we are compelled to explore new modes of interpretation and reading. Because “fragmentation . . . hinders our understanding of . . . narrative structure, particularly our ability to form any critical reading of it” [Balmer 2013, 67], these new modes must be open-ended. And, as Susan Stephens argues, because hypotheses about the relationship between a fragment and its whole are intrinsically non-falsifiable, critics are “grant[ed] considerable latitude . . . for interpretation,” which results in an “almost open-ended hermeneutic environment” [Stephens 2002, 77]. Editing

fragments, she suggests, should therefore be conducted along subjunctive lines as a “negotiation, an exploration of the possibilities rather than the transmission of dogma” [Martin and Langin-Hooper 2018, 84]. Stephens’s emphasis on interpretive plurality is representative of a theoretical shift in the criticism of classical fragments. The “standard scholarly practise,” S. Rebecca Martin and Stephanie Langin-Hooper write, “was to understand them [i.e., fragments] as incomplete things, whose principal purpose was to serve as a referent to a complete . . . whole” [Martin and Langin-Hooper 2018, 1]. Increasingly, however, fragments are being valued as texts and objects “in their own right” (ibid.), rather than as the offcuts of an absent signifier, especially because fragments implicitly “eschew” the totalizing impulse of conventional representational modes such as naturalism, and thereby allow us to explore alternative modes that embrace incompleteness (ibid., 10). Because fragments eschew totalities in favor of the partial, the criticism of fragments can switch between multiple perspectives to an extent that, in other critical contexts, could be condemned as insufficiently rigorous. The benefit of thinking about *Sea and Spar Between* through the lens of fragmentation, then, is that the poem’s main theoretical challenge (how to “choose configurations of output to serve as representations of the work” [Moulthrop 2017]) dissolves because the work’s unreadability transforms from an insoluble problem into an invitation to critical multiplicity.

I accept this invitation by exploring *Sea and Spar Between* through several interpretive modes. I argue that because fragments encourage us to move between different critical paradigms, we end up looking at them from various perspectives; ironically, therefore, we can see the fragment more completely than we could have had it been possible to view against the contextual backdrop of its whole.

## Seeking a microcosm in the waves of Sea and Spar Between

One possible response to the overwhelming complexity of *Sea and Spar Between* at the macro-level is to focus on its more intelligible micro-levels. For example, we could begin at an arbitrary stanza and interpret it in relation to its local context to create a cluster of significance, treating the poem as a kind of jigsaw puzzle with the conceptually inverted aim of disassembling the completed set into sub-sets of related pieces.

Let us test this approach. Assume for the sake of argument that the reader has pseudo-randomly entered the poem at the coordinates (22, 22):

fix upon the bag-disk course  
nailed to the spar  
fast-fish  
arrestless bank and rise

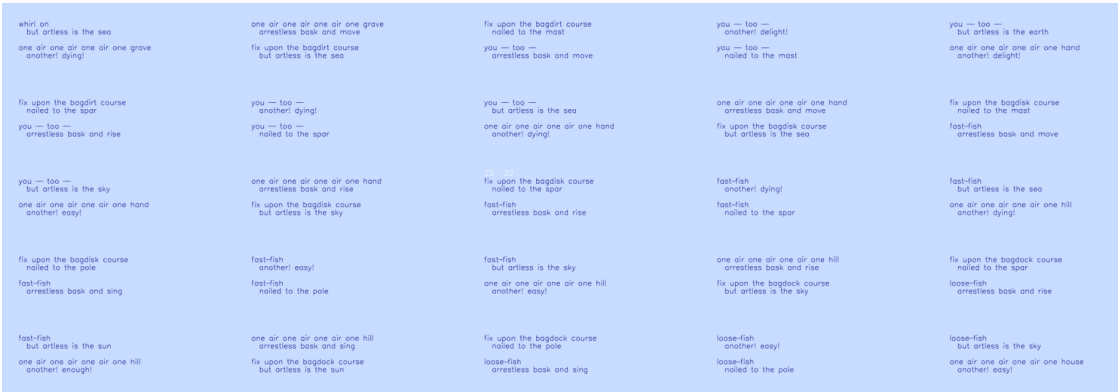


Figure 2. (22, 22) and its surrounding stanzas

We can view (22, 22) through several different paradigms. For example, as a hub from which spokes of stanzas radiate outwards, or as the temporary midpoint of a conveyor belt of stanzas paratactically related to one another, or as a volta signalling a pivot in thought or pitch that divides the stanzas of the upper half from those of the lower, or as an element in an n-tuple. Of course, these examples do not exhaust the possible perspectives we might adopt. As Barry Stroud

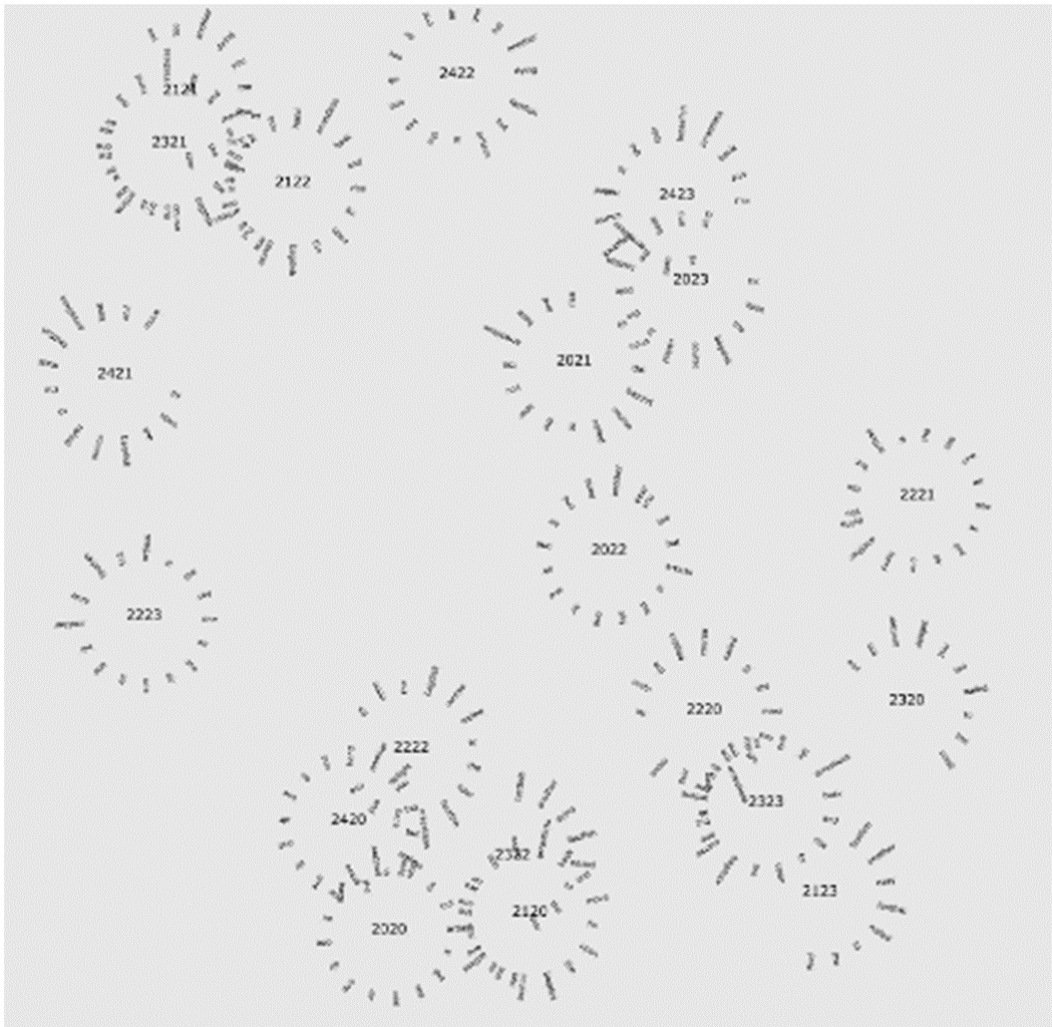
writes, “The only limitation on possible conceptual schemes is our limited ingenuity in inventing them” (1975, 92). But before selecting one of the above paradigms to apply to (22, 22) and its local context, the limits of that context have to be determined. How many of the stanzas in Figure 2 should we read? (There are three obvious possibilities: first, every stanza depicted within Figure 2, second, the row or column within which (22, 22) appears, third, (22, 22) *tout court*.) For if we want to focus on *Sea and Spar Between*’s textual micro-levels, then we must decide how to partition the poem into micro-levels. And unless we choose to read each stanza as if it were *sui generis* and therefore completely unrelated to its neighbours, then our chosen micro-level must allow for the grouping of interrelated stanzas and the mapping of relationships between stanza-groups. The problem, in a nutshell, is that it is not immediately clear how to accomplish this.

These groups should be discrete insofar as the point of collapsing *Sea and Spar Between* into micro-levels is to create a set of sub-poems that are feasibly interpretable in isolation, as opposed to stanzas that are interpretively dependent on their connections to stanzas around them, and the stanzas situated concentrically beyond those stanzas, and so on for some indefinite distance. So, the partitioning of stanzas will ideally be based on a system that we can use to distinguish nonarbitrary points at which one set of related stanzas ends and another begins. For example, we might group stanzas together based on linguistic-thematic coherence. The difficulty with formulating a partitioning system and applying it to *Sea and Spar Between* is that the gradation of the poem’s language is exceptionally fine; textual elements from one stanza bleed subtly into its neighbouring stanzas, whereupon they are minutely calibrated before bleeding into a neighbouring stanza’s neighbouring stanza, and so on. Variation occurs gradually and delicately, much like oceanographic variation between different bodies of water, making it difficult to identify points at which to nonarbitrarily separate groups of stanzas.

For example, consider Figure 3. It depicts each stanza from Figure 2 as a circle or circular segment — with each stanza’s constituent words extending outwards from, and placed at equidistant points around, its respective circle’s circumference — scattered at random points upon a rectangle. Note that each coordinate is represented as an integer: (24, 22), for example, becomes “2422.” The impression, bearing in mind that the placement of the circles is random and therefore that imbrication does not imply relatedness, is of a set of atomic stanzas. The most sensible textual micro-level against which to align one’s reading of the stanzas depicted here, then, appears to be each stanza in and of itself. It is difficult to see, judging from Figure 3 alone, how one might nonarbitrarily connect, say, the stanzas at (24, 21) and (23, 20). But when this process is repeated (see Figure 4), with the crucial adjustment of diagramming word *types*, not word *tokens*, the set of twenty stanzas is replaced by a set of three stanzas.<sup>[2]</sup> In other words, once the reader has read three of the twenty stanzas (i.e., 15% of the stanzas), they will have read every word type that appears in the stanza-rectangle; the remaining 85% of text consists solely of permutations of the tokens of those types. Figure 4 thus illustrates that the stanzas within the rectangle are much more similar than Figure 3 suggests. The task of nonarbitrarily splitting the set of stanzas into subsets therefore becomes more difficult because as similarity increases, so too does the temptation to leave the entire set *in situ* as a textual micro-level in and of itself. This point can also be illustrated mathematically, and I want to do so to underscore the extraordinary extent to which *Sea and Spar Between* is indivisible, before considering what interpretive purchase this indivisibility affords us.

## A mathematical illustration of *Sea and Spar Between*’s interconnectedness

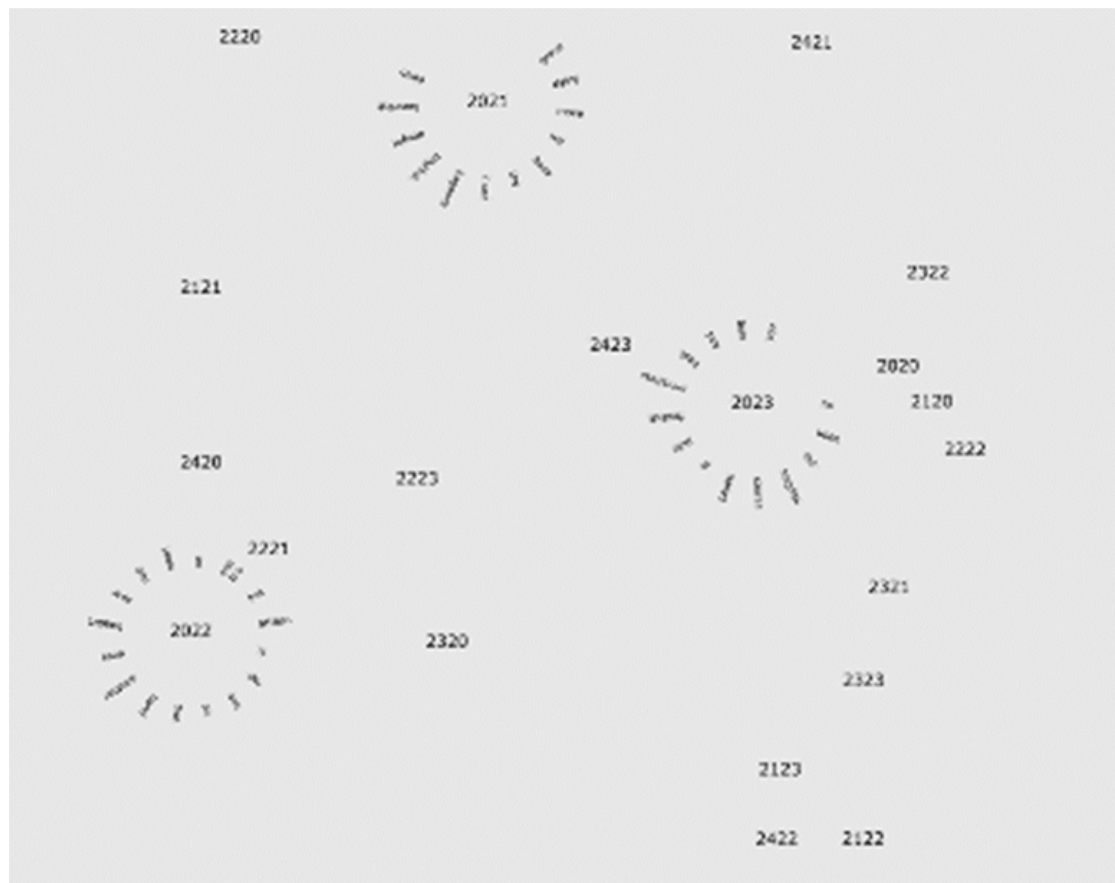
Let us examine a rectangle, with vertices located at the coordinates (100, 109), (104, 109), (104, 90), and (100, 90), that contains 100 stanzas. And let us place those stanzas within a term vector model. Say we have a stanza *S* that is part of a group of stanzas *GS* located in vector space *VS*. The number of dimensions in *VS* equals the number of unique words (*W*) in *GS*. So,  $VS = \{W_1, W_2, \dots, W_n\}$ . And in *VS*,  $S = \{w_{S1}, w_{S2}, \dots, w_{Sn}\}$ , where  $w_{Sn}$  represents the weight of  $W_n$  in *S*, where the weight is a number that, in this case, is defined by how often  $W_n$  appears in *S*. For example, if “Ishmael” were the 7th word in *VS* and occurred 5 times in *S*, then  $w_{S7} = 5$ . Repeating this process for every stanza in *GS* for every word in *VS* would result in a sparse matrix like the one depicted in Table 1.



**Figure 3.** (22, 22), its surrounding stanzas, and their word tokens.

	1st word in VS	2nd word in VS	3rd word in VS	4th word in VS	5th word in VS	6th word in VS	7th word in VS	8th word in VS	...	<i>n</i> th word in VS
1st stanza in GS	0	0	1	0	0	1	0	0		0
2nd stanza in GS	3	0	0	0	0	0	1	1		2
3rd stanza in GS	1	0	0	2	1	0	0	0		0
...										
<i>n</i> th stanza in GS	0	0	2	0	0	1	0	0		0

**Table 1.**



Each stanza can then be represented as a vector in  $n$ -dimensional space. For example, consider the following document-term matrix where the rows represent two hypothetical texts that can only use two words (“dog” and “cat”), and the columns represent the frequency of those words:

	“Dog” frequency	“Cat” frequency
Text one	2	2
Text two	10	8

Document-term matrices can be represented in vector space by assigning each term a separate axis, and by letting the frequency of each term equal the corresponding coordinate value. For example, if we let the x-axis stand for “cat” and the y-axis stand for “dog” in the below vector space, then text one will be located at (2, 2) and text two will be located at (8, 10):

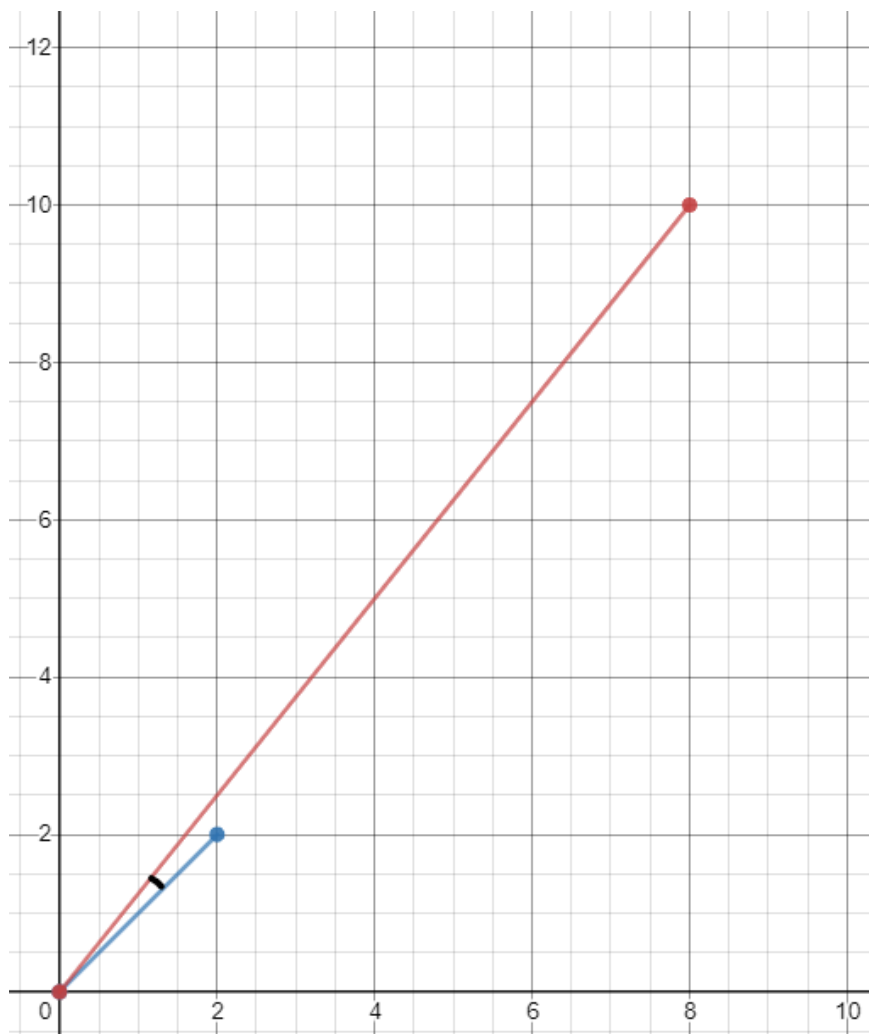


Figure 5. A vector space representation of Table 2

Once texts are represented in vector space, we can calculate their similarity. Although the above vectors are relatively dissimilar in terms of Euclidean distance (vector magnitude), the angle they form is acute and they are therefore similar in terms of vector orientation (which is intuitive, insofar as both documents are comprised of the same words and differ only with respect to the frequency of those words). Vector orientation is the better measurement of document similarity in vector space. For example, though one might assume that if term  $z$  appears more frequently in document  $x$  than in document  $y$  by a factor of ten, then  $x$  is more concerned with  $z$  than  $y$ , document  $x$  might simply be ten times larger than document  $y$ , in which case both documents would be equally related (proportionally) to the topic denoted by term  $z$  (assuming  $z$  is not polysemous). Vector orientation reflects this kind of isomorphism better than vector magnitude. The cosine of the angle that two vectors form is one way to measure text similarity. As the cosine of the angle between two vectors approaches 1 ( $\cos(\theta) = 0^\circ$ ), the texts those vectors represent will theoretically be more similar. As the cosine approaches 0 ( $\cos(\theta) = 90^\circ$ ) the texts will theoretically be less similar. As the cosine approaches -1 ( $\cos(\theta) = 180^\circ$ ) the texts will theoretically be more opposite. I took the 100 stanzas located within the above stanza-rectangle, computed each stanza's cosine similarity to every other stanza, and exported the results to a spreadsheet, which can be viewed at [https://github.com/moona740/Nat\\_Moore\\_MA\\_Thesis/blob/master/cosinebagofwords%20\(1\).xlsx](https://github.com/moona740/Nat_Moore_MA_Thesis/blob/master/cosinebagofwords%20(1).xlsx). Note that the minimum cosine similarity between two stanzas here is 0, not -1, because the algorithm I used is based on term frequency (how often a word appears in a document, operating under the assumption that if two texts share a roughly similar vocabulary, and the frequency distribution of that vocabulary is also roughly similar, then they are roughly alike) and a word cannot appear  $< 0$  times in a text. The cells highlighted in red are those that show a cosine similarity between 0.7 and 0.99 inclusive. There are 3046 cells in this range. But this figure does not tell us the number of *unique* instances of cosine similarities between 0.7 and 0.99 because cosine similarity calculation is based on multiplication

(the cosine of two vectors is essentially their scalar product divided by their length product), which is commutative. In other words, the spreadsheet (E) equals its own transpose ( $E = E^T$ ); the value of the cell at row  $x$  and column  $y$  is identical to the cell at row  $y$  and column  $x$ . So, to find the number of *unique* instances of cosine values in the desired range, we need to divide 3046 in half, resulting in a quotient of 1523. A rectangle with 100 stanzas has 10,000 ordered pairs of stanzas.<sup>[3]</sup> This means that 15.23% of the stanzas within the rectangle highly resemble (linguistically and thematically), at least one other stanza also therein. What interpretive purchase does this data give us? It reemphasizes that even relatively distant stanzas within the poem's stanza-lattice are similar. For example, the first stanza within the rectangle has a cosine similarity of 0.8198 with the 99th stanza. The second stanza has a cosine similarity of 0.8421 with the 94th stanza. The 76th stanza has a cosine similarity of 0.9474 with the 35th stanza. These similarities complicate attempts to sculpt the poem into discrete micro-levels because they show that there is a low correlation between Euclidean distance and linguistic-thematic gradation. Reading the stanza-rectangle is therefore complicated because it is less a stanza-rectangle than a stanza-web, with a practically infinite number of interconnecting strands. For example, if we took our previous stanza-web and stretched it from 100 stanzas to 1000 stanzas (an increase of 900%), the number of ordered pairs would increase from 10,000 to 1,000,000 (an increase of 9900%, which is an example of the curse of dimensionality, i.e., the problems that occur when interpreting data in high dimensional spaces). If roughly 15.23% of these ordered pairs were also significantly like at least one other stanza in the same web, then we would be left with the infeasibly large figure of 152,300 highly related stanza-pairs to read.

## A possible objection considered and refuted through the relativity of scale

One might make a reasonable objection here. Why is our inability to reduce the above stanza-web to smaller micro-levels a problem? It is already a micro-level in and of itself (if we ignore the 10,000 ordered pairs contained therein); 100 stanzas are not unmanageably large. Why not simply analyze those 100 stanzas, instead of brooding about how to make ever finer calibrations? After all, most literary scholarship on long texts rest on generalizations, which themselves rest on mobilized inferences from delimited, if carefully selected, parts.

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The answer to this objection returns us to the poem's size and revolves around what J. H. Prynne terms "the principle of *scale* and its working in poetical composition," by which he means that "very small, local details can point to and complicate very large ideas or features of argument" [Prynne 2013, 3]. By extension, Prynne argues, we can use small textual data as "primary instruments to think with, to uncover and investigate connections that can extend far beyond their immediate occurrence" [Prynne 2013, 3]. As a kind of proof of concept, Prynne proceeds to use a single word ("incense") as an interpretive key with which to unlock *Paradise Lost*. There is nothing in Prynne's analysis to suggest that he believes the inferential movement from the small to the large is a heuristic that should be limited to the analysis of Miltonic texts. It seems fair to assume that Prynne subscribes to a literary version of quantum entanglement. "Two quantum-entangled particles . . . can be arbitrarily separated in space whilst remaining interdependent with respect to their measurable properties, such that a change in one will invariably be accompanied by a change in the other," writes William M. R. Simpson [Simpson 2017, 5]. If we replace "particles" with "signifiers" then we have a gloss of Prynne's vision of the poetic connection between the local and the global.

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The problem for us is that *Sea and Spar Between's* scale puts even the local out of reach. One concordance of *Paradise Lost* puts its total word count at 82, 860 (Matsuoka n.d.), and one "incense" token therefore comprises 0.00120685493% of Milton's epic. Implicitly, Prynne believes that 0.001% of a text is an adequate tool to "uncover and investigate connections that can extend far beyond their immediate occurrence" [Prynne 2013, 3]. Perhaps, then, we should content ourselves with reading 0.00120685493% of *Sea and Spar Between* and dismiss our inability to read the entire poem. But recall that the algorithm generates  $149923832^2$  stanzas. 0.00120685493% of  $149923832^2$  stanzas, rounded to the nearest integer, is two billion, seven hundred twelve million, six hundred sixty-six thousand, five hundred thirty-two stanzas. At my normal reading speed, I can read about twelve stanzas of the poem in one minute. I would thus require roughly 43 years to read 0.00120685493% of *Sea and Spar Between*. And even if I did devote my life to this quixotic task, I could not take what I had read and "trace its . . . echoes and ambiguities of reference across the entire poem," as Prynne does with the word "incense," for the simple reason that I would still have another

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99.9987931451% of the poem to read before I could do so. Readers of *Sea and Spar Between* cannot use the “small to illustrate or endorse the large,” as Prynne does with *Paradise Lost*. They are restricted to using fragments to speculate about the poem’s largeness.

## An alternative method to fulfil our “obligation toward the difficult whole.”

In summary, *Sea and Spar Between* resists division into subsets because its interconnectedness makes it difficult to identify exactly where to nonarbitrarily split its macro-level into different micro-levels. Even if *Sea and Spar Between* did explicitly encourage textual partitioning, subsequent partitions would have to be exceptionally minute to be feasibly readable, and they would therefore have little extrapolative value. Prynne’s principle of scale — “that very small, local details can point to and complicate very large ideas or features of argument” — is ultimately subordinate to the principle of meta-scale because the micro-level of a very large macro-level makes a mockery of its prefix: 1% of *Sea and Spar Between*, for example, is two trillion, two-hundred fifty million stanzas. Consequently, to use the words of Aristotle, “as the eye cannot take it all in at once, the unity and sense of the whole is lost for the spectator” [Aristotle 1911, 31], and readers are therefore restricted to conjecture, using whatever they can glean from the poem’s fragments, when questions are raised about the poem as a totality. The poem’s readers, then, have little choice but to resemble those critics who Brian McHale censures for staking their arguments on apparently key pieces of text, which are subsequently treated as “interpretive centres . . . around which to organize . . . heterogenous material” [McHale 2004, 139]. Poems thus interpreted, McHale argues, are “reduced, in effect, to a skeletal structure of points that yield most readily to a particular interpretive orientation” [McHale 2004, 139]. “This strategy,” McHale writes, leads to the reduction of a poem to a “collection of decontextualized ‘key’ quotes,” and, as a result, “the bulk of the poem goes uninterpreted — unread, to all intents and purposes” [McHale 2004, 139]. The difference is that the bulk of *Sea and Spar Between* is not unread “to all intents and purposes,” but literally unreadable; the reader’s reliance on fragments of text is an imposed and unavoidable constraint, not a culpable failure to meet what McHale calls “the obligation toward the difficult whole” [McHale 2004, 1]. I write “imposed” as a reminder that Montfort and Strickland have deliberately thwarted the possibility of understanding the poem’s whole by restricting readers to a virtually endless series of fragmentary parts. We are thus forced to navigate the text in a manner reminiscent of the *Pequod*’s peripatetic voyage (our search for stable textual meaning is therefore ambiguously conflated with Ahab’s dangerous and arguably pointless obsession), and the conventional tools of close reading, as we have seen, cannot help us upon this voyage.

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However, denying critics the opportunity to close read *Sea and Spar Between* as a totality might ultimately be an act of critical generosity if, as David Ciccoricco argues, the “trouble” with “second generation digital-literary criticism . . . [is] the celebration of both the practice and the very possibility of close reading works [of] digital literature, while at the same time failing to adequately articulate what ‘close reading’ means, or must come to mean, in digital environments” [Ciccoricco 2012]. For by making it impossible to close read *Sea and Spar Between*, Montfort and Strickland not only make it *a fortiori* impossible to celebrate the practise or possibility of close reading *Sea and Spar Between*, but also compel critics to articulate how close reading must evolve if it is to have any relevant applications to overwhelmingly distant computational texts.

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What we need is a close reading of close reading. One place from which we might draw inspiration for this task is the criticism of classical textual fragments. Here, I argue, we can find a set of provisional, flexible principles that work with, rather than against, the fragmentation of *Sea and Spar Between*. According to the translator Diane Rayor, one such principle is the resolution to make textual lacunae evoke “connections,” not “absences,” which thereby enables readers “to bridge the gap” between a fragment and its absent whole (quoted by Balmer [2013], 50). In the remaining sections of this article, I attempt to invest the fragments of *Sea and Spar Between* with significance by meeting them with an equally fragmentary array of alternatives to close reading (for example, the mode I turn to next concentrates upon the reader’s affectual experience of the poem). In doing so, I suggest that the best way to interpret a text that always already comes to us in fragmented form is not only through *using* the fragment as an organizing critical trope, but also through the mimetic *making* of new interpretive fragments.

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## From the sublime to the stuplime

The Brain is deeper than the sea —  
 For — hold them — Blue to Blue —  
 The one the other will absorb —  
 As sponges — Buckets — do —  
 [Dickinson 1960, 312]

Montfort and Strickland invert this relationship: the poem’s “sea” is deeper than the reader’s “brain,” which cannot absorb the blue to which it is, paradoxically, both parallel (grammatically) and incommensurate (spatially). We have seen that conventional close reading is ill-suited to circumventing the challenges that this inversion poses. I want now to examine a mode of reading that may be better suited to the vastness of *Sea and Spar Between*. It is the mode that each of the poem’s authors recommend (for now, we will reserve judgement as to whether this counts in the mode’s favour or against it), though their recommendations differ on a subtle but profound point. We can therefore add Montfort and Strickland to the list of oppositions (e.g., sea and spar, Melville and Dickinson, longitude and latitude) that cumulatively entrench juxtaposition as one of the poem’s central structural principles. First I want to address Montfort’s recommendation:

We do not consider that readers will often seek out particularly apt stanzas and wish to return to them. While returning to a favorite stanza is possible in our system, it may seem a curious quest . . . . For some readers, the experience of *Sea and Spar Between* will occur rather in the texture, operation, and journey of reading the work as it presents itself, rather than in any particular destination. Finding the free experience of reading to be better than the saving of coordinates, they will soon be “Done with the Compass — / Done with the Chart!” [Montfort and Strickland 2013]

After conceptual poetry’s assault on the Coleridgean definition of poetry as the best words in the best order, and on the high modernist values of originality and verbal mastery, it is only somewhat of a surprise to read a poet predict that their readers will prioritize texture over text. But it becomes more surprising when we recognize that Montfort’s quote is from one of Dickinson’s most anthologized poems, “Wild Nights — Wild Nights!” The decision to use an acclaimed poem to buttress the thesis that *Sea and Spar Between*’s stanzas are fungible is, at best, dissonant; quoting apt words to promote the interpretive equivalent of drifting at sea is potentially self-defeating. For it might make us ask why a text that is purportedly a homage to Dickinson’s poetry would meet certain distinctive features of her oeuvre — originality, concision, and concentration of meaning — antithetically with repetition, prolix, and dispersal of meaning. But we should be cautious of this question because were we to truly ask it, then we would move beyond the textual analysis of “particularly apt stanzas” to the meta-textual analysis of “texture, operation, and journey,” which would leave us uncritically obeying Montfort’s interpretive vision in a manner reminiscent of some of the more obsequious crew members of the *Pequod*. Such obedience is already ubiquitous. The critical responses to *Sea and Spar Between* (not excluding my own) are marked on the one hand by little to no discussion about individual stanzas, and on the other by prolonged discussion about the poem as a whole, or rather on the impossibility of discussing the poem as a whole (see Moulthrop and Schumaker [2016]; Aquilina [2017]; Le Cor [2018]; Moulthrop [2018]). But one person who does not entirely agree with the paradigm of reading that Montfort advocates is the figure from whom one would least expect divergence: his co-author. Strickland writes:

Narrative fails if you can’t know beginning or end, even if you do know extent. But resonance does not . . . . In the 21st century a single stanza from 225, or from 225 trillion, equally, may resonate, even with meme-like force. And this impression will vary depending on how you happen to, and/or choose to contextualize it within wider swaths or waves of reading. There can be no anticipation of an outcome, only registration of it. [Montfort and Strickland 2013]

Montfort’s assertion that “we do not consider that readers will often seek out particularly apt stanzas and wish to return to them” contradicts Strickland’s assertion that any one of the poem’s stanzas might “resonate . . . with meme-like force,” because readers of poetry typically return to resonant stanzas. This contradiction is surprising because

Montfort's "we," unless it is royal, implies consensus. Further shattering the illusion of consensus, Montfort's emphasis on the singular ("texture" as opposed to "textures," *mutatis mutandis* for "operation" and "journey") implies that the poem is a vehicle for a single affect. Yet Strickland's emphasis on plurality (expressed in the language of the consumer warning: "this impression will vary") implies that the reader can autonomously dictate the text's affectual impact because they can "choose" to "contextualize" their impressions "within wider . . . waves of reading." The contradiction seems intractable. On the one hand, how can a poem that is so formally and conceptually excessive play host to only one affect? But on the other, how could a poem so overwhelmingly large fail to overwhelm the reader, and how could this irresistible devastation of attention not be the poem's sole texture? The answer is that both are correct at different points in time. Strickland is initially correct, and then, after an indefinite period, the varying impressions that underlie her vision of the "registration" of experience degenerate to a single texture: fatigue.

Strickland's prediction that "there can be no anticipation of an outcome, only registration of it" recalls Samuel Taylor Coleridge's "small water-insect":

25

Most of my readers will have observed a small water-insect on the surface of rivulets . . . how the little animal wins its way up against the stream, by alternate pulses of active and passive motion, now resisting the current, and now yielding to it in order to gather strength . . . This is no unapt emblem of the mind's self-experience in the act of thinking. [Coleridge 1975, 72]

What I have been calling Strickland's "prediction" also functions as a prescription, and what it prescribes is prioritizing the mind's self-experience in the act of reading over the act of reading. In "The Function of Criticism at the Present Time," Matthew Arnold praises the self-scrutiny of Edmund Burke ("that return of Burke upon himself" [Arnold 1914, 18]); Strickland similarly endorses the reader's return upon themselves as an object of critical reflection. In doing so, she reenacts the so-called affective turn by turning to the reader's affective experience as a productive theoretical lens. (The "affective turn" names a growing fascination with affect in the social sciences and humanities. It is difficult to be more precise because "affect theory is a notoriously diffuse area of study," which lacks "any generally agreed definition of the central object" [Brown et al. 2019, 21]. However, the key idea is that humans are "imbued with subliminal affective intensities that . . . decisively influence or condition our political and other beliefs" [Leys 2011, 436]. Affect theory is grounded in these "affective intensities" and their entanglement with discursive forces.) Affect theory, at first glance, seems a promising way of overcoming the poem's expansion of scale by situating the effects of that expansion in an inversely *contracted* locus: the reader's body. Because, regardless of a text's inscrutability, readers can always scrutinize their own subjective feelings (granted the Cartesian presumption that individuals have secure and privileged access to the first-person phenomenal realm, which is open to debate: see Srinivasan [2015]). Even if a text is hostile to intellectual assimilation, the reader's conscious affective response to that hostility is, *ceteris paribus*, still assimilable. So, although *Sea and Spar Between* seems affectively recalcitrant in its overall inscrutability, that blankness and closure invite an affective response, and Strickland's prediction hence begins to seem increasingly perceptive. In a zone of partially unparseable poetic meanings, she denies that the reader's meaning-making capacity is consequently disabled. Instead, she predicts, the impulses, attitudes, and emotions provoked by an unsynthesizable text will themselves cohere into a meaningful gestalt. The poem's effectively infinite scale is therefore met, and neutralized, by the effectively infinite range of affects available to human readers. According to the logic of Strickland's prediction, the frustration of the reader's capacity to make meaningful claims about the textual whole stimulates affective states; those states are meaningful; the reader's meaning-making capacity is therefore rehabilitated; experiential registration is therefore privileged over experiential anticipation. Strickland's impressionism is partially borne out by the reader's short-term experiential response to the poem. The only upper limit on the quantity of these responses is the number of people who have read the poem because each will have had a unique reading experience. But once the reader realizes that they have no hope of circumnavigating the poem's sea, the plurality of affectual responses begins to converge to a deep and relentless boredom. For the longer one reads, the less one is able to ignore the poem's scale and its consequences, including, most notably, fatigue. At this point, Montfort's prediction comes into effect: "finding the free experience of reading to be better than the saving of coordinates . . . [the reader] will soon be 'Done with the Compass — / Done with the Chart!'" [Montfort and Strickland 2013]. The phrase "free experience" imbues the reader's dismissal of "compass" and "chart" with a liberating sense of *amor fati*, which conjures images of the reader traversing the poem's

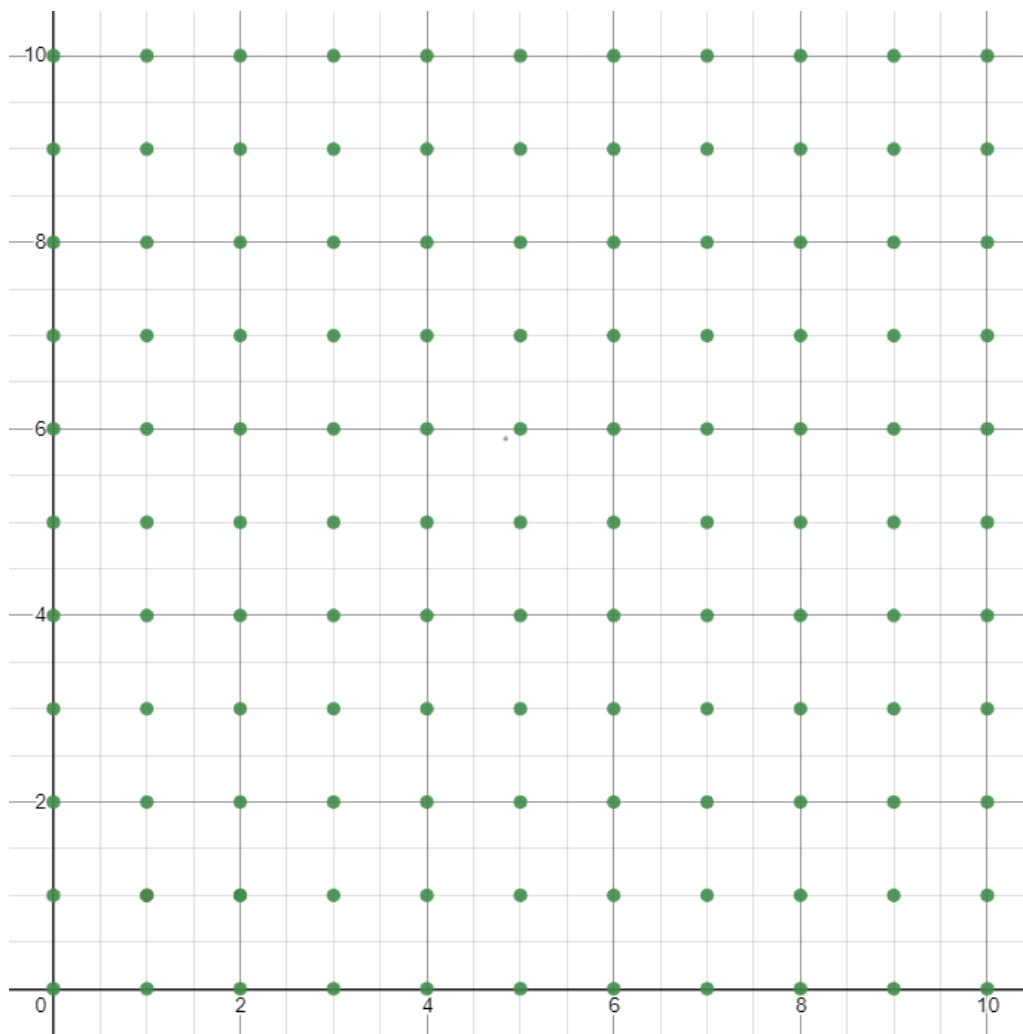
26

sea with insouciant disregard for the impossibility of ever reaching shore. But if we return to the poem from which Montfort extracts his concluding quotation (Dickinson's "Wild Nights — Wild Nights!"), we can see that Dickinson's speaker is only "done" with navigational instruments because they are immobilized, which renders such instruments superfluous:

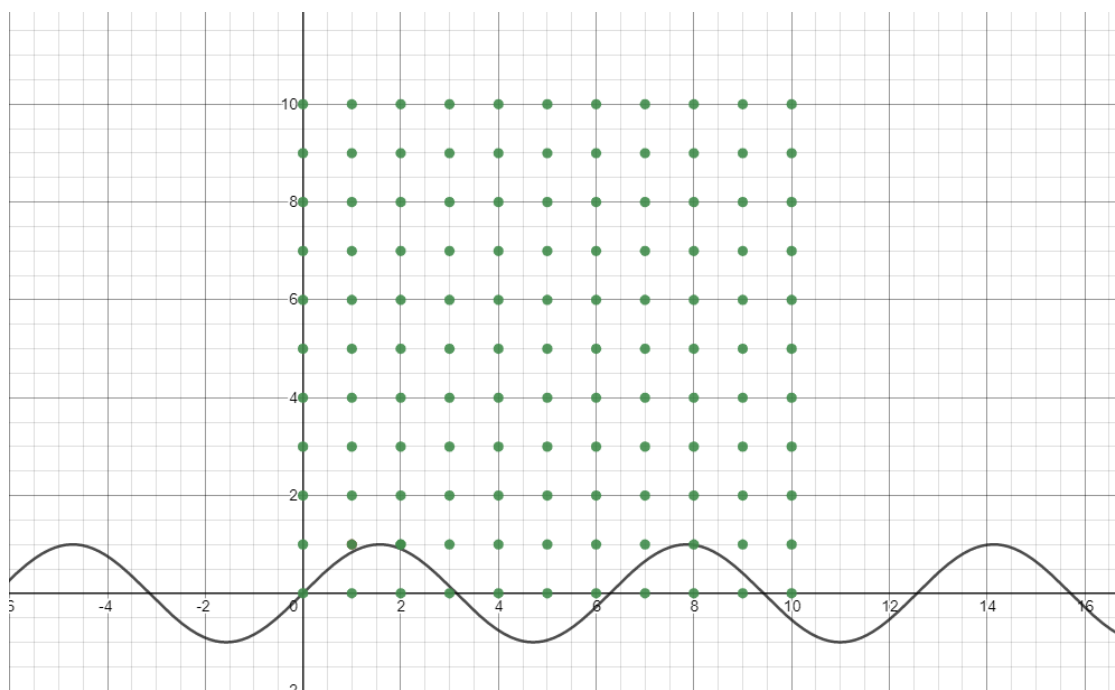
Wild nights — Wild nights!  
Were I with thee  
Wild nights should be  
Our luxury!  
Futile — the winds—  
To a Heart in port—  
Done with the Compass—  
Done with the Chart!  
Rowing in Eden—  
Ah — the Sea!  
Might I but moor — tonight—  
In thee!  
[Dickinson 1960, 114]

Dickinson's speaker is port-bound, and it is this confinement that inverts traditional symbols of movement (wind) and autonomous exploration (maps) to make them represent, with an almost perverse irony, their respective antitheses. Montfort's prediction therefore resembles the sea in its concealment of its contents below a surface. Even if the reader begins to operate *Sea and Spar Between* with a unique method, or with the aim of charting an experimentally nonlinear journey, or by paying close self-referential attention to their textural experience — thereby fulfilling Montfort's ostensible prediction — those operations, journeys, or textures will eventually contract into the texture of, and journey through, imposed determinism: the brute reality of the poem's scale. The reader thus moves from the poem's operator to that which is operated upon, which places their interpretive autonomy in peril. What Montfort conceals below the surface of his prediction is that each "particular destination" is merely a way-stop on the journey to the poem's final destination of stupefaction, a terminus that is especially inescapable if one's method of escape depends on "texture, operation, and journey." Attempts to transcend the poem's size-imposed uninterpretability through tactical neglect of interpretation will only manage to defer the problem of scale for an interval that is inversely correlated to the duration of the reader's reading session. Engaging with the poem's size is the *sine qua non* of prolonged engagement with the poem.

Having sketched how Strickland's prediction briefly reigns, before being dethroned by Montfort's, I want now to concretely demonstrate how this process occurs. Suppose I am about to enter *Sea and Spar Between* and have decided to focus on how I read rather than what I read. I then observe that although many critics have noted that each stanza has two coordinates (denoting longitude and latitude), the possibilities that these coordinates open up have been neglected (apart from the obvious utilitarian functionality: coordinates can be typed into a search bar to move the reader to that location). But if we let each horizontal and vertical coordinate stand for an x- and y-value, respectively, then we can map every stanza of the poem on to a Cartesian plane. For example, here are the stanzas (denoted by the green dots) from (0, 0) to (10, 10) plotted in Cartesian space:

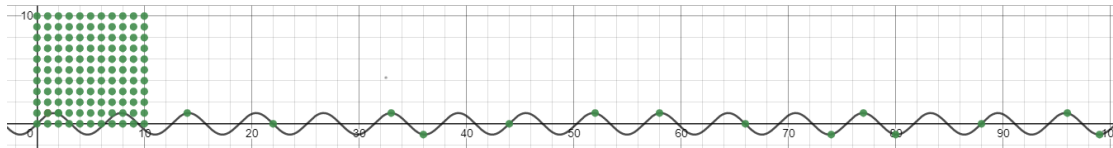


**Figure 6.** The stanzas of *Sea and Spar Between* from (0, 0) to (10, 10) in Cartesian space



**Figure 7.** A sine wave moving through *Sea and Spar Between*

Then we can take a function — an equation for which any  $x$  input will yield exactly one  $y$  output, or  $y = f(x)$  — and plot that function on to the same Cartesian plane. The sine function —  $y = \sin(x)$  — is an obvious choice because its shape, bearing in mind the poem's location in a virtual sea, is fitting (even if it is plotted on a grid, whereas navigating an actual sea requires adjustment for the earth's ellipsoid shape):



**Figure 8.** The beginning of the sine wave's journey

Then we can read the poem geometrically by structuring our path through the text in accordance with the wave-like shape of the sine function. We can follow the wave from crest to trough and vice versa along the  $x$ -axis and note the points where the sine wave and individual stanzas intersect (because the domain of the sine function is all real numbers we could do this literally *ad infinitum*, so the poem's length, for once, poses no methodological problem). And then we could choose to read only those stanzas that intersect the wave, such as the stanzas at  $(0, 0)$  and  $(8, 1)$  in the above figure. Our journey through the text's metaphorical sea would thus be determined by the movement of a sinusoidal line receding and returning along a metaphorical shore (i.e., the  $x$ -axis. Note that the  $x$ - and  $y$ -axes have now doubled their representative function. The  $x$ -axis now represents both a stanza's horizontal coordinate and theta; the  $y$ -axis now represents a stanza's vertical coordinate and the sine of theta). The beginning of this journey is depicted Figure 8.

```

1
2 import nltk
3 import re
4 import string
5 frequency = {}
6 document_text = open('sea_text.txt', 'r')
7 text_string = document_text.read().lower()
8 from nltk.corpus import stopwords
9 stop_words = [word.upper() for word in stopwords.words('english')]
10
11 match_pattern = re.findall(r'\b[a-z]{3,15}\b', text_string)
12 for word in match_pattern:
13     count = frequency.get(word,0)
14     frequency[word] = count + 1
15
16 frequency_list = frequency.keys()
17 filtered_list = [word for word in frequency_list if word not in stopwords.words('english')]
18 sort_freq = sorted(filtered_list.items(), key=lambda x: x[1], reverse=True)
19 for i in sort_freq:
20     print (i[0], i[1])
21

```

**Figure 9.** An algorithm to find the most common words in the critical literature on *Sea and Spar Between*

According to the sinusoidal method outlined above, we would read 16 of the first 101 stanzas of *Sea and Spar Between*. These 16 stanzas are located at the following coordinates:  $(0, 0)$ ,  $(8, 1)$ ,  $(14, 1)$ ,  $(22, 0)$ ,  $(33, 1)$ ,  $(36, -1)$ ,  $(44, 0)$ ,  $(52, 1)$ ,  $(58, 1)$ ,  $(66, 0)$ ,  $(74, -1)$ ,  $(77, 1)$ ,  $(80, -1)$ ,  $(88, 0)$ ,  $(96, 1)$ , and  $(99, -1)$ . What is the initial texture of the sinusoidal method? What journey does it initially take us on? These are not rhetorical questions. I invite you to answer them for yourself by following the instructions at: [https://github.com/moona740/Nat\\_Moore\\_MA\\_Thesis/blob/master/Graph](https://github.com/moona740/Nat_Moore_MA_Thesis/blob/master/Graph). But note the exertion of “initial.” The sinusoidal pattern of reading could stimulate hundreds of *initial* affectual experiences: curiosity,

displeasure, mesmerisation by the sine wave's endless oscillation between its range of [-1, 1] and so on. As Strickland correctly predicts, the reader's "impression will vary" [Montfort and Strickland 2013]. But only initially. If you have followed the above instructions, then you will know that whatever affective response the poem first provokes will, given enough time, eventually decay to a homogenous affectual experience. The critical consensus is that this experience is one of sublimity. For example, Aquilina writes that "'Sea and Spar Between' . . . is a poetic experience that provokes the 'sublime'" [Aquilina 2018, 209], and Hayles claims that the poem's "effect is a kind of technological sublime" [Hayles 2018]. Moreover, the editors of the third volume of the Electronic Literature Collection call *Sea and Spar Between* an allegory of the relationship between readers and "a digital sublime. Montfort and Strickland demonstrate how the massive scales of computer data far exceed human phenomenology" [Boluk et al. 2016]. Finally, Moulthrop and Schumaker argue that *Sea and Spar Between* explores "a topological sublime — a level of possibility and complexity that overloads traditional cognitive structures," noting also that the poem "countersigns its topological excursion with reference to an older register of the sublime," namely the sea, which functions as an "image of natural immensity" [Molthrop and Schumaker 2016, 135]. But the sublime, with its Romantic connotations of awe and astonishment, is an incongruous paradigm with which to read a poem that ultimately induces overwhelming fatigue. A more appropriate aesthetic category is Sianne Ngai's "stuplime" (a portmanteau of "stupefaction" and "sublime"), which she defines as "the unusual synthesis of excitations and fatigue" stimulated by "encounters with vast but bounded artificial systems resulting in repetitive and often mechanical acts of enumeration, permutation and combination" [Ngai 2005, 36]. According to Immanuel Kant, sublimity is experienced when an observer confronts an overwhelming whole that precipitates a sense of cognitive and perceptual inadequacy [Ngai 2005, 265]. But for Kant, Ngai writes, the threat that this confrontation poses to the self is nullified when the imagination's inability to comprehend the sublime forces the observer to fall back upon ratiocination as a last-gasp defensive mode of comprehension, whereupon reason is entrenched "as a *superior* faculty — one capable of grasping the totality . . . that the imagination could not in the form of a noumenal or supersensible idea, and also of revealing the self's final superiority to nature" [Ngai 2005, 266]. The sublime's initial majestic power, and the analytical mind's final victory over that majesty, makes it a poor theoretical instrument with which to interpret a text that grinds its readers down by the mundane accumulation of iterative poetic offcuts. Because, as Ngai writes, the "initial experience of being aesthetically overwhelmed" by such texts is one not of "terror or pain (eventually superseded by tranquility), but *something much closer to an ordinary fatigue*—and one that cannot be neutralized, like the sublime's terror, by a competing affect" [Ngai 2005, 270]. Given that *Sea and Spar Between* is one such fatigue-inducing text, its repeated theorization through the lens of sublimity has given rise to a partially false impression of its affective scope. The poem's patient erosion of the reader's attention span and curiosity does not "confirm the self's sense of superiority over the overwhelming or intimidating object" [Ngai 2005, 270], or cathartically dilute the terror instilled by its own enormity. Moreover, any astonishment it provokes is tempered by the reader's inability to read the poem in its entirety. Ngai writes that fatigue-inducing texts demand new modes of thinking about what it means to be incapacitated by aesthetic objects, on the assumption that "radically different forms of cultural production" call for equally radical critical responses [Ngai 2005, 271]; an assumption, incidentally, that this article questions in its use of fragmentation to interpret *Sea and Spar Between*. "Stuplimity" is Ngai's answer to this call. The term names the affective interplay of fatigue (stupefaction) and awe (sublimity) that promises, but perpetually falls just short of delivering, an aesthetic denouement. We can see this stuplimic interplay in the language of *Sea and Spar Between*, where a mere 268 words combine to form 225 trillion stanzas; a contradictory mixture of linguistic poverty and wealth that ultimately "results," to borrow Ngai's description of a prose-poem by Samuel Beckett, "in a language that is paradoxically both ascetic and congested, 'thickening' even as it progresses into a narrative of not-progressing" [Ngai 2005, 255]. The reader therefore succumbs to the fatigue caused by the felt absence of propulsive linear narrative or hierarchical sequence, which culminates, if that is the word, in an "indeterminate affective state that lacks the punctuating 'point' of an individuated emotion" [Ngai 2005, 284].

It seems, then, that the mode of reading recommended by Montfort and Strickland is one that engineers an inescapable transfer of stupor from text to reader. Yet "by pointing to what obstructs aesthetic or critical response," Ngai writes, the stuplime — much like the fragment — "prompt[s] us to look for new strategies of affective engagement and to extend the circumstances under which engagement become possible" [Ngai 2005, 262]. The poem's title hints at an alternative strategy of affective engagement. *Sea and Spar Between* quietly advises the reader that when the poem entertains an apparent opposition, such as sea/spar, the binary is less important than what lies between it. For example, consider the

Melville/Dickinson binary. I write above that the poem's language moves "back and forth between the compressed interiority of Dickinson's poetry and the expansive intensity of Melville's prose." But it is equally plausible to claim that Melville's prose is painfully cramped in places, insofar as the *Pequod* is cramped (for example, the blubber-room) and Ahab is constricted by, because in thrall to, an *idée fixe*. Similarly, one can adduce various lines of poetry to support the argument that Dickinson's poetry is centrifugal and expansive, despite or because of her Amherst exile:

The Brain — is wider than the Sky —  
For — put them side by side —  
The one the other will contain  
With ease — and you — beside —  
[Dickinson 1960, 312]

We can therefore disturb the equilibrium of the Melville/Dickinson opposition with surprising ease, which is evidence of the heed we should pay to the poem's titular emphasis on betweenness when making oppositional claims. One way of respecting the title's liminality is to examine what lies between the poem's sea (the interface) and its spar (the various fragmentary strategies of reading that permit the reader to float upon the poem's sea): its algorithm. Because we can read the algorithm in its entirety, it offers us a secure basis on which to speculate about the poetry that it generates. In the final section of this article, I ask whether reading the finite code that generates an effectively infinite text allows us to imagine the poem's fragments as a cohesive whole. One might anticipate that at this point the article's emphasis on fragmentation will itself fragment, insofar as interpreting the poem's code involves understanding the system that structures its part/whole binary, which is very different to working with nonalgorithmic classical text-fragments. However, I show that fragmentation remains a useful heuristic not only because *Sea and Spar Between's* code raises more questions than it does answers (which ultimately leaves the text in an even more fragmented state), but also because I use the poem's code to double its fragments by making a duplicate website, which exemplifies my argument that by bringing classical literary forms and modern computation into dialogue, we can instigate a conversation that its greater than the sum of its fragmentary parts.

33

## Sea and Spar Between's code: the questions hidden in its answers

Once we look at the poem's code, which can be viewed at <http://www.digitalhumanities.org/dhq/vol/7/1/000149/resources/source/000149.html>, the 225 trillion stanzas simplify down to a small set of textons,<sup>[4]</sup> which I reproduce below:

34

```
var shortPhrase = ['circle on', 'dash on', 'let them', 'listen now', 'loop  
on', 'oh time', 'plunge on', 'reel on', 'roll on', 'run on', 'spool on',  
'steady', 'swerve me?', 'turn on', 'wheel on', 'whirl on', 'you — too — ',  
'fast-fish', 'loose-fish'];  
var dickinsonNoun = [  
  ['air', 'art', 'care', 'door', 'dust', 'each', 'ear', 'earth', 'fair',  
'faith', 'fear', 'friend', 'gold', 'grace', 'grass', 'grave', 'hand',  
'hill', 'house', 'joy', 'keep', 'leg', 'might', 'mind', 'morn', 'name',  
'need', 'noon', 'pain', 'place', 'play', 'rest', 'rose', 'show', 'sight',  
'sky', 'snow', 'star', 'thought', 'tree', 'well', 'wind', 'world', 'year'],  
  ['again', 'alone', 'better', 'beyond', 'delight', 'dying', 'easy',  
'enough', 'ever', 'father', 'flower', 'further', 'himself', 'human',  
'morning', 'myself', 'power', 'purple', 'single', 'spirit', 'today'],  
  ['another', 'paradise'],  
  ['eternity'],  
  ['immortality']  
];  
var courseStart = ['fix upon the ', 'cut to fit the ', 'how to withstand
```

```

the'];
var dickinsonSyllable = ['bard', 'bead', 'bee', 'bin', 'bliss', 'blot',
'blur', 'buzz', 'curl', 'dirt', 'disk', 'doll', 'drum', 'fern', 'film',
'folk', 'germ', 'hive', 'hood', 'husk', 'jay', 'pink', 'plot', 'spun',
'toll', 'web'];
var melvilleSyllable = ['ash', 'bag', 'buck', 'bull', 'bunk', 'cane',
'chap', 'chop', 'clam', 'cock', 'cone', 'dash', 'dock', 'edge', 'eel',
'fin', 'goat', 'hag', 'hawk', 'hook', 'hoop', 'horn', 'howl', 'iron',
'jack', 'jaw', 'kick', 'kin', 'lime', 'loon', 'lurk', 'milk', 'net',
'pike', 'rag', 'rail', 'ram', 'sack', 'salt', 'tool'];
var dickinsonLessLess = [
  ['art', 'base', 'blame', 'crumb', 'cure', 'date', 'death', 'drought',
'fail', 'flesh', 'floor', 'foot', 'frame', 'fruit', 'goal', 'grasp',
'guile', 'guilt', 'hue', 'key', 'league', 'list', 'need', 'note', 'pang',
'pause', 'phrase', 'pier', 'plash', 'price', 'shame', 'shape', 'sight',
'sound', 'star', 'stem', 'stint', 'stir', 'stop', 'swerve', 'tale',
'taste', 'thread', 'worth'],
  ['arrest', 'blanket', 'concern', 'costume', 'cypher', 'degree',
'desire', 'dower', 'efface', 'enchant', 'escape', 'fashion', 'flavor',
'honor', 'kinsman', 'marrow', 'perceive', 'perturb', 'plummet', 'postpone',
'recall', 'record', 'reduce', 'repeal', 'report', 'retrieve', 'tenant'],
  ['latitude', 'retriever']
];
var upVerb = ['bask', 'chime', 'dance', 'go', 'leave', 'move', 'rise',
'sing', 'speak', 'step', 'turn', 'walk'];
var butBeginning = ['but', 'for', 'then'];
var butEnding = ['earth', 'sea', 'sky', 'sun'];
var nailedEnding = ['coffin', 'deck', 'desk', 'groove', 'mast', 'spar',
'pole', 'plank', 'rail', 'room', 'sash'];

```

When the algorithm executes, it takes these textons and inserts them into predefined line templates, such as the “exclaimLine” template:

35

```

function exclaimLine(n)
{
  var a, b = n % twoSyllable.length;
  n = Math.floor(n / twoSyllable.length);
  a = n % threeToFiveSyllable.length;
  return threeToFiveSyllable[a] + '!' + twoSyllable[b] + '!';
}

```

The overwhelming complexity of *Sea and Spar Between*’s trillions of stanzas is thus generated with a very simple procedure: a small set of textons are combined within the patterns defined by syntactic templates. In addition to showing us the words that comprise the poem, and the structures that these words must adhere to, the code also lets us see Montfort and Strickland’s explanations of their rhetorical decisions. For example:

36

```

the ..."           // The function nailedLine() produces a line beginning "nailed to
as a reward        // In Moby-Dick, Ahab nails a doubloon to the mast, offering it
is meant to        // to the one who sees the white whale first. This line template
                  // semantically mirror an extended attempt to find axial support,

```

```

both by the          // reader of our poem and within Melville's novel, where being
"at sea"             // involves trying to locate a moral compass, trying to track
down a quarry,       // trying to control the crew through bribery, and using the mast
itself as            // a pointer to the stars in 19th-century navigation.

```

Having moved from the poem, where the prospect of drowning in its textual superabundance is an ever-present threat, to the poem's code (which, at 930 lines, is *prima facie* tractable), we might be tempted to assume that we are in safer waters. But that would be a mistake. For example, Montfort and Strickland write that:

37

```

// The array variable shortPhrase contains short phrases, almost
all of
// which are taken from Melville's Moby-Dick:

var shortPhrase = ['circle on', 'dash on', 'let them', 'listen
now', 'loop on', 'oh time', 'plunge on', 'reel on', 'roll on', 'run on', 'spool
on', 'steady', 'swerve me?', 'turn on', 'wheel on', 'whirl
on', 'you - too - ', 'fast-fish', 'loose-fish'];

```

However, a concordance of *Moby-Dick* shows that the phrases “circle on,” “listen now,” “loop on,” “oh time,” “plunge on,” “reel on,” “spool on,” “turn on,” “wheel on,” and “whirl on” do not appear in the novel. Despite being told that “almost all” of the phrases in the `shortPhrase[]` array are “taken from Melville’s *Moby-Dick*,” over half (10/19) do not appear there (see Irey [1982]). Similarly, we are told that:

38

// The array variable dickinsonNoun contains common nouns from Dickinson's // poems. We judged these nouns as common using a frequency analysis of the // words in the poems.

39

Yet the word “leg,” which is present in the `dickinsonNoun[]` array, does not appear in Dickinson’s oeuvre (see Rosenbaum [1964], 432). Furthermore, we are told that the words in the below array were “commonly used” by Dickinson (see line 232 of <http://www.digitalhumanities.org/dhq/vol/7/1/000149/resources/source/000149.html>):

```

var dickinsonSyllable = ['bard', 'bead', 'bee', 'bin', 'bliss', 'blot', 'blur',
'buzz', 'curl', 'dirt', 'disk', 'doll', 'drum', 'fern', 'film', 'folk', 'germ',
'hive', 'hood', 'husk', 'jay', 'pink', 'plot', 'spun', 'toll', 'web'];

```

The words that I have bolded are hapax legomena; if a word is a hapax legomenon in the context of an author’s oeuvre, then, by definition, it is not “commonly used” by that author (see Rosenbaum [1964]). Once again, Montfort and Strickland’s code directly contradicts their explicating comments. More broadly, the use of non-Melvillean and non-Dickinsonian language complicates Montfort and Strickland’s assertion that “our poetry generator, *Sea and Spar Between*, was fashioned based on Emily Dickinson’s poems and Herman Melville’s *Moby-Dick*” [Montfort and Strickland 2013]. The disjunction between the authors’ self-professed process and their actual process shows that although the poem’s code seems like a ready-made solution to the many interpretive challenges that *Sea and Spar Between* poses, it ultimately raises more questions than it answers.

40

## Conclusion

I have argued in this article that one way of responding to the computational vastness of *Sea and Spar Between* is through the lens of a distinctly pre-computational literary category: the fragment. Because fragments are cut off from their original context, they resist definitive critical judgements. Although this resistance limits what we can and cannot say about *Sea and Spar Between*, it also lets us move from one provisional and speculative critical perspective to another (we moved from close reading, to cosine similarity, to affect theory, to the sinusoidal method, to the sublime, to the stuplime, and finally, to the poem’s code), which results, paradoxically, in a more complete understanding of the

41

poem's fragments.

I want to make one final point about *Sea and Spar Between*. Montfort and Strickland write in the poem's code that:

42

```
// If someone were to replace our words and phrases with new
texts, a
// generator with a similar appearance and similar
functioning, but with a
// new vocabulary, would be defined. That is, it is
practically possible to
// create a new generator, a remix or appropriation of this
one, by
// replacing only the data in this section. If this is done
and the code
// is not otherwise modified, the system will assemble
language in the same
// way, but it will work on different language.
```

[5]

Moreover, they conclude:

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```
// The most useful critique is a new
// constitution of elements. On one level, a reconfiguration
of a source
// code file to add comments – by the original creator or by
a critic –
// accomplishes this task. But in another, and likely more
novel, way,
// computational poetics and the code developed out of its
practice
// produce a widely distributed new constitution.
```

[6]

Montfort and Strickland are clearly inviting their readers to use *Sea and Spar Between* as a computational poetic template, in the same way that *Taroko Gorge* [Montfort 2009] has been persistently remixed in homage to, or as a reflexive interpretation of, Montfort's iterative poetics.

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Figure 9 documents my acceptance of this invitation. I took the critical literature on *Sea and Spar Between* (some 20,000 words) and collated it into a text document. Then I wrote a Python script that tallied the document's most frequent words (excluding stop words). I took the most frequent words and inserted them into the various arrays within *Sea and Spar Between*'s source code. I have hosted the resulting meta-critical fragments on a website that you can view at [www.natmoore.co.nz](http://www.natmoore.co.nz).

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My hypothesis is that somewhere within the new 225 trillion fragments of text is a line that, due to a serendipitous combination of words and insights from the hivemind of criticism that the poem has impelled, offers a novel idea that could lead the theorization of *Sea and Spar Between* in particular, and combinatoric algorithmic poetry in general, in a pathbreaking direction. Of course, the odds of someone ever finding this hypothetical fragment within a figurative ocean of fragments is close to zero. But that is only fitting, given what this article has demonstrated: that a productive mode of

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interpreting *Sea and Spar Between* is firstly through the classical model of fragmentation, and secondly through the computational generation of new metacritical fragments. Because if we fragment a overwhelmingly large poem into a series of smaller reflexive pieces, then not only do we gain a broader, more nuanced critical perspective, but we also begin to mimetically enact the poem's stuplimity in reverse because an expansive text and a contractive text are equally overwhelming once they expand or contract beyond the point of human comprehension. More broadly, the metacritical version of *Sea and Spar Between* signals the critical usefulness of replicating (as opposed to simply explicating) the source code of a computational poem; the text thereby transforms from an interpretive locus to a poetic template, and by studying the similarities and dissimilarities of the different poetic instances made by the template, we can come to a deeper understanding of the original text.

## Notes

[1] The poem can be viewed at: [https://nickm.com/montfort\\_strickland/sea\\_and\\_spar\\_between/index.html](https://nickm.com/montfort_strickland/sea_and_spar_between/index.html).

[2] I intend "type" and "token" to be read in the philosophical sense whereby a type is a class, and a token is an instance of that class. For example, the phrase "hello world, hello world" has four tokens but only two types.

[3] 100 ordered pairs from (1, 1), (1,2), ..., (1, 100), another 100 ordered pairs from (2, 1), (2, 2), ..., (2, 100), and so on until the 100th list of ordered pairs of (100, 1), (100, 2), ... (100, 100), giving us 100 \* 100 ordered pairs.

[4] I borrow this term from Aarseth, who use "textons" to refer to "strings as they exist in the text" and "scriptons" to refer to "strings as they appear to readers" [Aarseth 1997, 62]. "In a book such as Raymond Quneau's sonnet machine *Cent mille milliards de poèmes*," Aarseth clarifies, "there are only 140 textons, but these combine into 100,000,000,000,000 possible scriptons" [Aarseth 1997, 62].

[5] See lines 189–195 of <http://www.digitalhumanities.org/dhq/vol/7/1/000149/resources/source/000149.html>

[6] See lines 925–930 of <http://www.digitalhumanities.org/dhq/vol/7/1/000149/resources/source/000149.html>.

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