

# **CHRISTOPHER FUNKHOUSER**

## **Irregular Solid: John Cayley's Cybertextually Engineered Digital Poetry**

London-based poet, theoretician, Chinese translator, and publisher John Cayley is a powerful digital poet whose sophisticated efforts in the field began in earnest prior to the emergence of the World Wide Web (www) in the mid-1990s.

equational textuality (note the reference to Oulipo in the POLIOU of “POtential LIterary Outlawry”). Cayley produced seven instalments of *Indra’s Net* prior to the emergence of the www, which were initially published on diskette by Cayley’s wellSweep Press (some of the stacks are available for download on the www).<sup>2</sup> Since 1996, he has produced roughly the same number of poems, all of which are available via the www. Although each piece contributes to an overall understanding of Cayley’s inventive project, and some of the significant motivations of digital poetry in general, it is impossible for me to address each of the titles in detail. In this essay, I introduce his general procedures, briefly discuss early works that establish his complex processes, and then introduce recent works that explore alternative approaches to composition.

Before introducing Cayley’s works themselves, I will introduce collocation, a technique that plays a significant role in each title. Cayley’s collocation process actively produces content through generative algorithms embedded within the programme that shuffle language using a formula to determine word placement. Describing some of the details of collocational mechanics (i.e., the imposed programmatic constraints) in the introductory section of *Moods & Conjunctions: Indra’s Net III* (London: Wellsweep, 1993-94), Cayley writes that the, “transformation can proceed with any word in the given text, which we then may call ‘the last word chosen.’ Any other word—occurring at any point in the given text—which follows (collocates with) the last word chosen may then follow it and so become in turn the word last chosen.”<sup>3</sup> In some examples of this work, as in *Moods & Conjunctions* (see below), one visual “level” of text appears, forming a stanza drawn word-by-word from the database. Another variation of the process, that has a startling effect, involves two levels of text being presented (illustrated directly below). These methodologies have obvious forebears in the “mesostic” and “diastic” work of John Cage and Jackson Mac Low (with Charles Hartman), as well as in



In this particular example, the Zen-like message of the lower text, which is a direct quotation

from a g4vexst cn te4(n t)-2(e),-2(r)bsicu(c)4(ta-2( quot)-2(,l)-2(-2(n o(on)]TJ ( )-2(004 Tc 0.01 Tw -2614(a)-11







are transformed into:

fail  
that content  
in this form  
the hearing  
the hearing  
the appreciation of  
writing  
why it

so often seems to you  
to fail  
that I have failed  
and to me that you

have got it wrong  
because we have all  
made the words I use  
and to me

that I have failed  
and because ( )Tj EMCaed



arranged or even the  
midst of the wall bound  
frame

extremely variable and does not follow a pre-set pathway on each activation. Basic words, in their reconfiguration, have the ability to present unexpected and complementary additions as they arise in the perpetuation of language, as they do above.

The four presentations in *Moods & Conjunctions* that feature two visual planes all appear in a similar manner, with a single word first appearing at the bottom of the screen, followed by a stanzaic text which uses the letters of the initial word (in order, one letter per word) to arrange its vocabulary (randomly drawing words that begin with the appropriate letter from the given texts). These pieces do not permit the viewer to adjust the degree of collocation by moving the mouse, although the viewer can make jumps at any point in the narrative by stopping it and clicking on one of the words, which then becomes the root word providing the skeletal structure for the subsequently generated passage. Though the texts are less participatory, they are engaging in their application of procedure, which as described above produce a type of perpetually shifting dual narrative. Occasionally, an abstract line-drawing is inserted that appears as if it has been

surely

visions intimacies

is

realizations

a

resolve dreams  
refashion brilliancies  
underlying resolve  
intimacies dreams  
conscious forget

refinement

realizations forget

of

brilliancies approach  
refashion nothing  
unique waking  
underlying everything

language

refashion forget

if

which everything

we

brilliancies unique  
visions underlying  
dreams

never

waking dreams waking  
realizations dreams

write

traces enjoy  
 everything silent  
 approach brilliancies  
 waking nothing

anything.<sup>18</sup>

The single words that appear first, at the bottom of the screen, are drawn sequentially from one of the given texts; they appear both to precede (by coming into view first) and follow (remaining at the bottom after the collocation has transpired), a condition that highlights their dual role in the formation of expression. Successive screens can be read either as individual units of poetry or as a serial text. Themes of the given text are presented in condensed, abstract, and oblique form as the collocations transform the language into a kinetic doppelganger of its original formulation. The dualistic works presented in *Moods & Conjunctions* explore themes established by the given texts on sex and language, subjecting these already challenging negotiations to further stricture and constraint via programming. Through a non-linear narrative that re-presents Eastern philosophical views to challenge idealized interpersonal rapport, the reader is reminded of

comr(a)6(lr) re.3 Td [(c)4(om)-2(r(a)6(lr))4(Tj -0.004 Tc 0.004 Tw 0.33 0 Td [q(a)6(lr)min)-83(a)4(p0.9)-5(

modes of language serve to provide a reasonable poetic context for the work. Cayley most directly asserts his perspective on the importance of innovative forms of expression by inserting a quotation from Ezra Pound's "Canto XCVI" as the epigraph to "Critical Theory:" "If we never write anything save what is already understood, the field of understanding will never be extended. One demands the right, now and again, to write for a few people with special interests and whose curiosity reaches into greater detail."<sup>20</sup>

Later titles by Cayley, *Leaving The City: Indra's Net V* (1995), *Golden Lion*, and *Book Unbound* (1995) employ similar collocational techniques and produce results similar to those found in *Moods & Conjunctions*, with slight differences. All of Cayley's titles through the mid-1990s utilize similar methods, processing given texts into a synthesized expression that effectively blends them into one verbal unit. Each project involves identifying individual documents that are of a kind with each other and then combining them together—via the calculations of a computer programme—into a new text.

When the given texts are much longer, as is the case in *Leaving the City* (in comparison to those in *Moods & Conjunctions*), the impact is significant. With a larger and more complex word base, the syntax is less fluid. Another effect of the larger pool of words from which the programme has to choose cannot be captured in a static representation of the text: onscreen pauses occur as the programme skims through the given texts to locate a word of appropriate structure to follow the word that has already appeared. These occasme



clicking on the first and the last words of a string of language. The textual selections made by the viewer are then stored in a file called “Leaf,” which can be accessed, edited, and used to enter new information into the poem. As a result of this process, Cayley explains, “readers can alter the work itself (irreversibly), collecting generated lines or phrases for themselves and adding them to the hidden given text so that eventually their selections come to dominate the generative process. The reader’s copy may then reach a state of chaotic stability, strangely attracted to one particular modulated reading of its original seed text.”<sup>23</sup> Whether or not the viewer opts to participate in the text, discernible patterns do not present themselves on either the level of the line or of the passages individually or as a whole, even though words are frequently repeated.

Unlike the generic interfaces Cayley works with in other titles, *The Speaking Clock: Indra’s Net VII* (1995) has a more visually complex scheme and uses the time of day (as well as the month) on the computer’s clock to arrange the language in motion at the centre of the screen. In order to achieve this effect, Cayley devises a system that establishes a correlation between the numbers one to ten and the most common letters in his 365-word given text. The given text is broken into four sections of about ninety words each that, according to the author’s notes, represent “seasonal” quarters of the year; it appears around the circumference of the clock at the edges of the screen. Each of the sections is further broken into three segments (separated by Roman numerals), which are read across the screen (i.e., on both sides of the active “clock” mechanism). The writing is inventive, discursive, without punctuation, and often has a serious tone; most of the segments directly mention time or clocks, as in this sample: “I each shaped breath tells real time is concealed / beneath the cyclical behaviour of clock and time / piece lost warmth true cold spelt out /





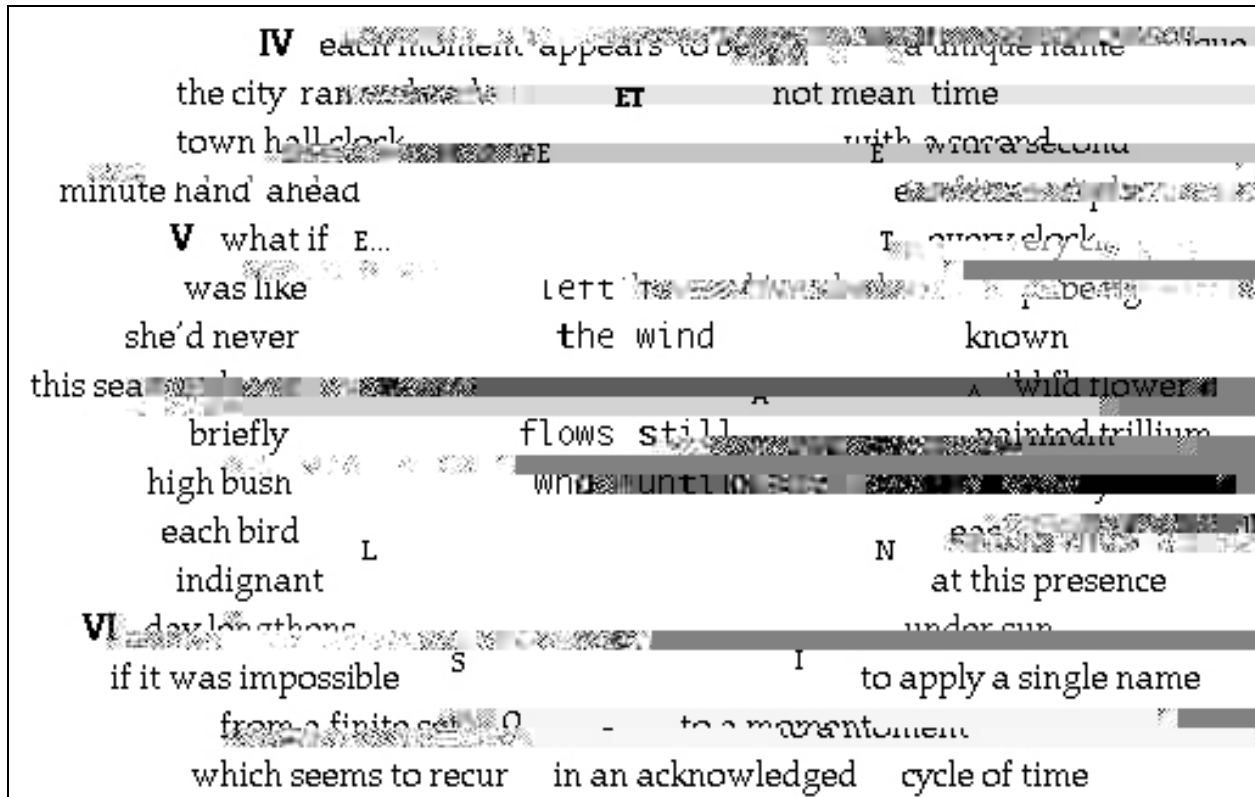


Fig. 1. John Cayley. Screen shot from "The Speaking Clock."



**Fig 2. John Cayley. Screenshot from Windsound 27 March 2005.**

As in his later work, *Overboard*, which is “installed as a dynamic linguistic ‘wall-hanging,’ an ever-moving ‘language painting’,” Cayley presents *Windsound* as screens of text that algorithmically unfurl into one another over the course of twenty minutes.<sup>32</sup> These works are to be observed, not interfered with. Intriguingly, when any of the nodal texts begin to reach lucidity, the possibility of clear communication immediately begins to dissolve. The way that the letters of the words are cycled cannot be represented by a static image, and the reader cannot determine where the poem “is” in its synthesis of base texts, so the effect is less noticeable and the narrative is reminiscent of the type of abstraction seen in Cayley’s previous works. What is discernible in the example above is that the stray letters or fragments in the margins (e.g., “e”, “t”, etc.), which are the remains of words that were once present, contribute an effect that also complicate a linear narrative. The viewer sees anima os c i

track, and also, at various times, hears synthesized speech from one of three voices. As he has in other works, Cayley treats the manufacture of linguistic structures at a granular or atomic level so that literary expression is created (or re-created). In her review of the piece, Heather McHugh writes that *Windsound* “reveals the power of letters, even as it plays with the limits of literal intelligibility. It explores the power of sequences, even as it plays with non-sequitur” and “bespeaks significant emotion” in its manipulation and presentation of language.<sup>33</sup>

Another poem that illustrates the progression of Cayley’s work in this vein is the 2003 title *riverIsland* which is “a navigable text movie composed from transliteral morphs with (some) interliteral graphic morphs.”<sup>34</sup> As before (e.g., “hologography”), Cayley has had to invent original nomenclature to classify the procedures used in his productions. Toward defining the first of these new concepts (i.e., transliteral morphs), Cayley writes, “If texts are laid out in a regular grid, as a table of letters, one table for the source and one table for the target, to morph

transliteration from one to another, a 5x10 grid of letters to another 5x10 grid of letters, nbl02o(“b)-.o7c92 0 T

**Fig. 3. John Cayley. Screenshot from riverIsland. 28 March 2005.**

A sequence of sixteen poems is arranged in a “horizontal” loop comprised of Cayley’s poetic adaptations of sixteen quatrains by Wang Wei. The sixteen texts in the vertical loop are all based on one of the poems in the same sequence, which is shown at the beginning of *riverIsland*; variations in this second loop include alternative translations of the poem. The work is controlled in two ways: either by two mapped images or by positioning the mouse over compass arrows shown on the screen. To move between texts, “by way of an on-the-fly transliteral morph,” the viewer leaves the mouse pointer atop an arrow key.<sup>36</sup> A second method of navigation is achieved by dragging one of the two movies shown on the bottom and on the left of the screen. Textual positioning is achieved by altering the perspective from which one sees the movie (or given

image). Changes in the audio, which consist of multiple voices speaking in several languages as well as water sounds, also occur as a result of re-positioning. Once the visual positions are established, the shown text begins to shift, morphing to the corresponding position as specified by the viewer's input. Essentially, the programming enables the viewer to move between randomly selected points in either sequence, and then watch as the corresponding poem evolves out of the poem that preceded it. Another dimension of the poem—which beyond its aesthetic qualities addresses the materiality (or “atomic structure”) of language—is presented here as a

interval that uses the aforementioned information to generate a sequence of poems (http://www.ericson.com/2010/03/10/)









