

Aya Karpinska and Daniel C. Howe

open.ended (2004)¹

Aya Karpinska emerged as an important digital poet when she presented *the arrival of the beeBox* at the 2003 E-Poetry Festival. After earning degrees in Systems of Cognition and Expression (2001), Interactive Telecommunications (2003), and Literary Hypermedia (2008), she now works as a marketing research consultant who specializes in interactive marketing strategies. Daniel Howe received an MFA in Literary Arts, a Ph.D. on generative literary systems (2009), and was awarded a 'Computing Innovations' fellowship from the National Science Foundation for 2009-2011. Amongst other accomplishments, Howe has created the only known example of digital poetry (thus far) involving use of two mice on the same processor ("Text Curtain," 2007), and is currently Cayley's collaborator on *The Reader's Project*.²

open.ended, initially produced as a "spatial poetry installation," appears on the WWW via use of a Java applet.³ Another 3D work with geometric features, *open.ended* presents an interesting contrast to [*theHouse*] for several reasons: its containment of text, inclusion of sound, and the level of control offered to viewers. Upon activation, viewers hear a soundtrack featuring the authors reading fragments of the text and encounter two hollow 3D cubes.⁴ One cube is nested inside the other, and both rotate randomly, with a gentle rocking motion, on a horizontal plane at the center of the screen; as they spin, color fields of the cube's surfaces shift in tone. On each side of both cubes, two and three line fragments appear. Beneath these objects the authors provide two slide controls (one for each cube) marked with five vertical notches, labeled "free" (left) and "360" (right).⁵ Engaging with the work, viewers discover its controllability, how the mouse positions appearance of the cubes,

¹ <http://www.technekai.com/open/index.html>.

² <http://thereadersproject.org/>.

³ See <http://www.technekai.com/open/index.html> for production details.

⁴ These appear as boxes without surfaces on their top or bottom.

⁵ The center notch is marked "180"; other notches are unmarked—one can easily infer them to be "90" (left-center) and "270" (right-center).

and that these objects rotate in every direction.⁶

Slide controls effectively establish juxtapositions between inner and outer cubes. For example, if the inner slider is plotted at “180,” the lines “this/fantasy” holds steady at the center of the screen. If the right slider is left in the “free” position, the four passages of the outer cube gradually revolve atop the phrase, creating new visual combinations of poetic fragments (“compressing/this/every facet/fantasy”), as captured in Fig. 23:

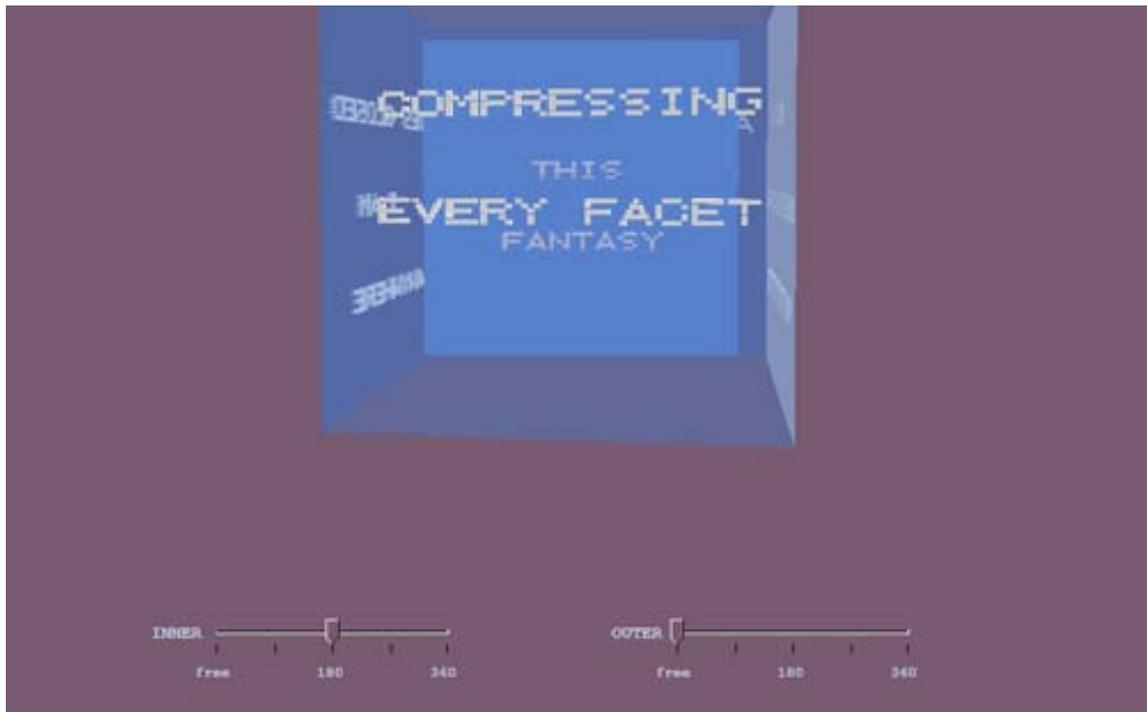


Fig. 23. Daniel C. Howe and Aya Karpinkska. Screenshot from *open.ended*.

With this level of interaction, a viewer might presume only sixteen unique combinations of texts (four combinations for the four surfaces on each cube). Manipulating the slider controls, viewers discover, however, the emergence of further textual instances. When cubes specifically align with one another, new textual output snaps into position on the screen. For example, keeping the inner cube set at “180” (“this/fantasy”) and setting the outer to “180” (“compressing/every facet”),

⁶As explained at the above website, this work also has a version prepared for use in physical space. In an installation setting, the user participates by using a joystick to move the textual objects. According to the authors’ description of the piece, a touch-screen version is also available.

a new combination of words appears, retaining only one word (“fantasy”) from the original pair of phrases, as seen in Fig. 24:



Fig. 24. Daniel C. Howe and Aya Karpinkska. Screenshot from *open.ended*.

Merging and condensing rearrangement of these texts into a single phrase can also be achieved by double clicking on the objects while each rotates in the “free” position (sliders indicate positions of each cube). These attributes enable sixteen new passages to appear.

Verbal permutation, again, plays a significant role, serving to solidify and emphasize primary themes of the work. The poem’s overt verbal messages (i.e., those appearing on the cubes) literally revolve around the theme of surrendering to fantasy—concepts singularly introduced on the surface of the inner cube but then reiterated in multiple instances when the cubes are manually synchronized. *open.ended* symptomatically intimates fantasy in which a persona, with “eyes closed,” unfolds, surrenders, and breathes softly, eliciting vulnerability within its implied eroticism; this persona compresses “every facet,” gets “emotionally undressed,” and has “an insatiable need to repeat” (Open). Its pre-programmed secondary texts deepen these sensibilities, further connecting

and reflecting the purposes of the poem's digital construction, in a scenario of being "surrounded," where "motion unfolds us," and an instinct and "need for touch" is repeatedly fed (Open).

open.ended's multi-vocal soundtrack portrays one possible reading or vocalization of the work, set on a loop and playing while the cubes interact with one other. Creating a second layer of information directly related to what happens on the screen, sonic vocalization literalizes what might occur during a performance of the work. At the same time, the soundtrack also provides another layer of information for the viewer to absorb while interacting with the piece. Voices asynchronously echo words on the screen, fortifying themes of the poem with chorale effect, creating unique layers or instances of textual moments for each viewer. Within its seeming simplicity, versatility materializes.

Beyond the work's textual elements, its graphical objects—juxtaposing dual shapes and shifting color patterns—occupy a playful role that enhances artifice. The cubes, in addition to rotating horizontally (on their own) can, with viewer/mouse input, be repositioned vertically. In fact, rotating the work this way enables a visual installation in which words do not appear at all. The objects become hollowed, kinetic, contemplative figures that continuously interact with one another. Viewers gazing at this formation—moving shapes containing but not visually projecting language—still hear the authors' voices reading the poetry, and might imaginatively connect each cube to one of the voices. Doing so, the viewer receives a different sense of the relationship existing between the cubes, which sometimes correspond snugly and sometimes not, and how the poem as a whole expressively performs.

In *open.ended*, computer operations enable a virtually layered, interactive object from which distinct (juxtaposed) texts and alternative fusions and derivations of these texts emerge. The poem's structure makes possible an array of renderings; while not boundless, a deeper, wider poetic scenario gradually manifests. Seemingly limited by constraint of conditions (only eight individual passages

appear on the surface), the work's design facilitates poetic diversity through incessant rotation and implementation of hidden texts. The authors execute copious poetic content with minimal resources as a result of their programmatic inventiveness and dexterity. To encounter fully and appreciate this multi-sensory poem, viewers physically interact with the 3D object(s), experimentally putting them into different positions while interpreting content. Engaged in a particular type of reading experience viewers absorb written, visual and spoken language simultaneously—uncustomary acts for many viewers. As in so many works of digital poetry, delivery of meaning depends on the rapport viewers develop with the structure and its contents. Such an encounter differs from the cognitive processes involved with reading subtitles on a movie screen, because the implications of text and ramifications of expression are supported by symbolic and not literal visceral imagery. We do not explicitly see the fantasy transpire, but it occurs through the motions and responses of the cubes to one another. As in [*theHouse*], rotation and oscillation—which manifests in *open.ended* through a bobbing effect—create instability, which is reconciled through interaction and manual adjustment of the given objects. One reads, and deduces sensibilities through manipulation of the variable affects of poetic language in addition to interpolation of a visual scenario.

In the late 1960s John Cage created several “plexigrams,” multi-layered poems featuring words or parts of words silkscreened onto small sheets of plexiglass.⁷ Theoretically, each of Cage's panels could have been manually removed from the slots of their base, or be rearranged, into a series of three-dimensional poems—thus achieving the effect portrayed by Karpinska and Howe in *open.ended*. Aesthetic differences aside (Cage's highly fragmented work avoided direct communication), the technical processes of the newer mode of presentation—previously investigated by Györi and others—has many advantages, including convenience of access, and would especially appeal to viewers seeking a more fluid poetic experience. Unlike Cage's approach,

⁷ These works are titled “Not Wanting to Say Anything About Marcel” (See <http://musicage.tumblr.com/page/2>).

which claims to not want to say anything, the juxtaposition of verbal elements of Karpinska and Howe are intentional, organized so as project a range of considerate, calculated possibilities.