A Vanguard Projected in Motion: Early Kinetic Poetry in Portuguese

Chris Funkhouser

➡ For additional information about this article
https://muse.jhu.edu/article/187974

A Vanguard Projected in Motion: Early Kinetic Poetry in Portuguese

by Christopher T. Funkhouser

Abstract

This essay serves to promote a broader awareness of the pioneering efforts in videographic poetry produced in Portuguese in the decades leading up to the formation of the WWW. At present, documentation of such works in books and journal articles in English is particularly weak; the only title that even partially introduces such works is a now out-of-print issue of Visible Language that focused on New Media Poetry (Vol. 30.2). Thus, these historical predecessors to contemporary animated poetry are barely known in the United States. Prior to the 1990s only a few poets used video; much of what occurred transpired outside the realm of English (and some even outside the realm of language, as illustrated in the essay).

Soon after technology became available that enabled poets to create animated works digitally or manipulate language in videographic formats, such practices ensued. In the late 1960s, poets began to use newly developed tools to present moving language on screens. Visually oriented, media-driven work, called videopoetry by some, was initially created using analog videotape, and later through a range of other delivery mechanisms. This expansion of form foreshadows the many later experiments in poetry that have proliferated in hypermedia designs. Videopoetry long predates a style of poetic practice that erupted with the emergence of the World Wide Web, typified by works suck as Brian Kim Stefans' "The Dreamlife of Letters," by titles included within John Cayley's *Indra's Net*, in Wilton Azevedo's *Interpoesia*, or in the range of kinetic poems archived on Komninos Zervos' *Cyberpoetry* site. Groundwork for today's animated poems (i.e., those made with Macromedia Flash and other programs) was underway by the late 1960s, and has been further cultivated ever since.

Most videopoetry that was produced until the 1990s did not involve the authoring of computer coding in order to process language. Instead, digital technology was an integral aspect to the sophisticated editing equipment used to automate the process of color, movement, or character generation. In other words, unless a software program requires scripting (as do Macromind/Macromedia Director, Hypercard, and others), the producer does not manually work with code: mastering the foibles of the hardware (sometimes combined with software) is the fundamental technical task of the poet or producer. This characteristic does not diminish its status as, or relation to, digital poetry. Early works illuminate the unique approaches to expression that poets brought to the medium before convenient software programs facilitated the necessary tasks. Of primary significance in this work in terms of acknowledging the development of the form is that the content is fixed with artistic intention, as are the majority of static visual works that were produced in the period. Rather than employ chance operation in their compositions, or impart interactive modes, videopoets at first typically used

graphical elements that combine language and symbols to produce a visual narrative. Works devised, despite their unconventional contents, are by definition as linear in form as are books. Of course, what can be done with the medium itself, as a series of projected or displayed visual images, delivers a completely different type of scripted reading experience. In later years, as interactive hypermedia programs are developed, some kinetic works became less linear and provided some authorial control or narrative options to the viewer. Videopoetry has continued to prosper as linear form, and has also been developed in alternative directions.

Videopoems, writes E.M. Melo e Castro in his book *Poética dos Meios e Arte High Tech* (*Media Poetics and High Tech Arts*), propose "multiple inquiries," and enable both grammatical and expressive possibilities in the transformation of blank neutral space into something enlivened by these potential attributes (64). Melo e Castro, in his practice and conception of videopoetry, does not refer to a form in which an image (or scene) is captured by a camera but one that is entirely produced or altered by computer hardware or software. Creating this type of work is a demanding activity that involves careful consideration and technological application, as well as working within the limitations of a computer interface. Realistic images that are usually seen in videos and movies, Castro points out, really only represent a part of the reality of any scene, whereas images in videopoems encapsulate an entire scenario of information that the poet wishes to present as (and to) the world in this form. Eventually, video became widely used as a documentary tool, and to make thematic, imagistic presentations of poems. However, in Castro's pioneering efforts video was not conceived to make literal either the poem or the poet. The endeavor of composing poetry in this domain is a creative act of the highest order. "Video as a medium and as an organizing principle of virtual images is a metaphor of reality," writes Castro, "It constitutes a metalanguage. It is a multiple generator of visual discourse and poetic perception" (Videopoetry 144).

Melo e Castro's 1969 videopoem, *Roda Lume* (Wheel Light), is a two minute forty-three second piece that was the first to apply video technology to the presentation of poetry. The title of the piece indicates the role that "light" now plays in the production of text; that is, effusive light which comes from a projection bulb, cathode ray tube, or another source. By using both empty space that fills with letters or lines, and shapes and letters that emerge in white from darkened backgrounds, Melo e Castro uses light (and dark) to graphically create more than one scenario for the poem. In various writings on the subject, Castro (who is Portuguese but has also lived in Brazil) names Stéphane Mallarmé as an inspiration, particularly the "substantive dynamism" that the French author had been able to achieve with a blank page (Meios 64), and for the concept of poetry as "a verbal galaxy of signs" (Videopoetry 140). In video as a medium, Melo e Castro saw an opportunity to test the dynamic possibilities for poetry, including the disappearance of language. Instead of working with tactile objects, such as wood, stone, and plastic to produce visual poems, as he had previously in his career, Melo e Castro recognized and pursued the idea that "The dematerialized virtual image was in itself a poetic image and therefore the poem could also be dematerialized" (144). In *Roda Lume*, a combination of computer animated letters and shapes are combined to propel an abstract narrative. The author's sketches, shown in *Antologia Efémera: 1950-2000* (2000), outline the sequencing of seventy different graphical schemes that were designed on storyboards; an example of one of the sequences is shown in Fig 1.
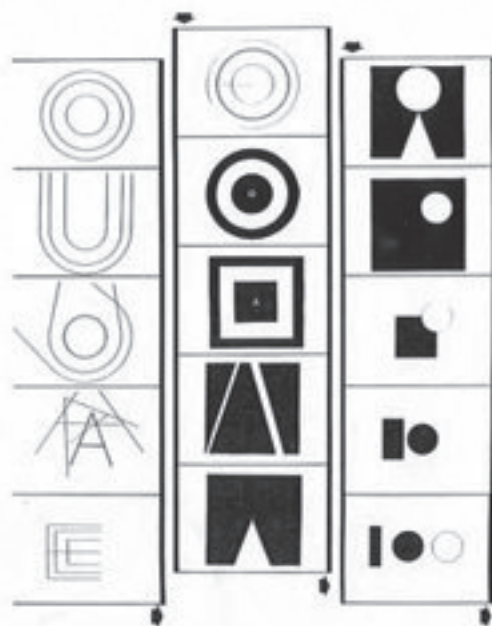
Fig. 1. E.M. Melo e Castro. *Roda Lume* storyboard diagram. *Antologia Efémera: 1950-2000* (Rio de Janeiro: Lacerda Ed., 2000), 283.

In "Videopoetry," Melo e Castro asserts that it is the duty of poets and poetry to challenge the limits of form and expression, break barriers, and offer new possibilities. The artistic approach, in *Roda Lume* and other works, involves the organization of a "metonymic" narrative in which substitutes or symbols are used to represent attributes of words instead of definitive language; Melo e Castro suggests that the character of images is more iconic than symbolic, meaning that in video words or concepts are demonstrated rather than directly stated (144). In contrast, panels shown below (Fig. 2) show how letters presented on the screen are combined to form distinct words, and portray a sense of movement amongst these elements (e.g., "Rodalume"). Melo e Castro's "Videopoemography," states that the production for this initial work involved directly editing animation on the camera, "registering image after image with a time-based corrector," and the addition of a soundtrack that featured a phonetic reading of the images (145). Responses to the piece were negative, and the tape was destroyed by the television station that had aired it as part of a literary program (though Melo e Castro did manage to produce a second version in 1986).

Videopoetry responds to the confrontation and possibility presented by new technology with which text and image could be produced. The technological value of the work is established by the text's ability to develop dynamics that surpass those of texts that feature simple repetitive and non-creative tasks. Melo e Castro refers to the experimental poetry of the '60s ("iconized text," which would certainly include Concrete Poetry) as the most immediate reference point for videopoetry, though with

new technical developments comes a renovated form of syntax in video, which is capable of sparking alternative and enjoyable textual presentations (142). Videopoems, with their "intimate relation of space and time, the rhythm of movement and the changing color," activate, writes Melo e Castro, a "poetics of transformation" with a grammar that integrates verbal and non-verbal signs (142). Sophisticated hardware allows the blending of alphabetic figures interlaced with links and moving images, which to some senses could be regarded as a type of activated Constructivism as geometric symbols and shapings are so pronounced in the piece. The experience of reading in this kinetic textual environment is complicated, and more sensual. Borrowing and extending a phrase contained in the title of Marshall McLuhan's *Verbi-Voco-Visual Explorations* (New York, Something Else Press, 1967), Melo e Castro outlines the confluence of senses in electronic text: "On the whole," he writes, "a verbi-voco-sound-visual-color-movement complex and animated image is created calling for a total kinesthetic perception" (143).
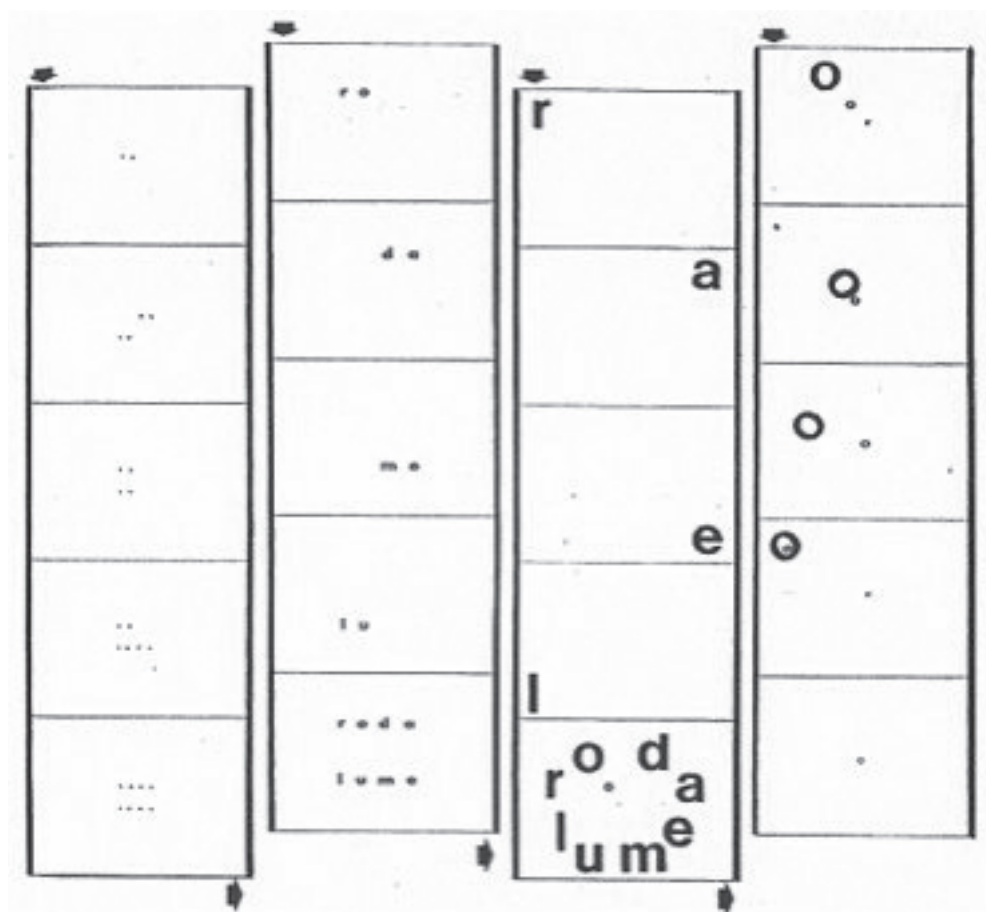

Fig. 2. E.M. Melo e Castro. *Roda Lume* **diagrams.** *Antologia Efémera: 1950-2000* **(Rio de Janeiro: Lacerda Ed., 2000), 282.**

In the mid 1980s, Melo e Castro created a series of eighteen videos in a series known as *Signagens*; seven of these works were eventually published on VHS tape under the title *Infopoemas: 1985-1989*. Each video features not only the movement of text, shape, and color, but also theatrical type movements whereby the piece as a whole is comprised of a series of distinct scenes that employ different graphical treatments. Minimal amounts of text are combined with strategic use of color, pattern, and distortion to illustrate a larger point. For example, "Poética dos Meios" (Poetics of Media, 1985) is a five-minute poem containing several different segments. In the narrative, Melo e Castro indicates and illustrates some of the new dynamics of text, signified by the kinetic spelling of the phrase "formas voadoras" (flying forms), which is an apt description of Melo e Castro's work here, as are other phrases that appear in the video, such as "espaço elástico" (elastic space) (n. pag.). In this video, lines, dots, and circles appear and interact with each other to make kinetic patterns that revolve into visual chaos. A pulsating synthesizer soundtrack plays throughout the work, a single repeated riff. In addition to establishing a visual continuity for the poem, the wavering shapes in "Poética dos Meios" assert the lack of fixity that becomes not only a possibility but a probability of electronically presented poetry. This piece is an exercise that shows the capabilities of the technology and defines the parameters of videopoetry at the time. The poem demonstrates that an artist can manipulate any number of elements: character-generators, shapes and symbols, colors, soundtracks, and so on. The poet's charge is to conceive of poetic ideas that the machine can effectively realize. Melo e Castro's work uses minimal verbal information in conjunction with visual patterning that establishes a correspondence between the two elements.

A shorter video, "Objectototem" (a neologism that combines the words "object" and "totem") (1985), uses words constructed from the title, with a few added letters, to demonstrate the ways text can be instantly destroyed and reconstructed, thereby illustrating a process of how words are made. Short words ("teto" [ceiling or roof], "totem," "acto" [act]) and repetitive fragments of words ("to," "ta," "a") are patterned vertically on the screen (white on black); they accumulate and shift (offset with each other), and patches of words are shaded with color while rhythmic percussion and chanting of the words repeat on a soundtrack. An example of one segment of blocks of words that appears at the conclusion of the video:

> TOTEM
> TACTO (touch, tactile sense)
> ACTO
> ACTO (Infopoemas).

This verbal sequence, when roughly translated, states, "totem/touch/act/act" (Infopoemas). The content is self-reflexive: the words shown are treated as totemic symbols, flexible by the nature of their construction, which can be (and are) purposefully manipulated in a series of actions contrived by the poet. From a literal perspective, this declamation defines one series of roles or activities for the writer who works with new media technology. The concern here, however, as in Melo e Castro's "Ideovídeo" (1987), is not necessarily to retain semantic value but to show how text can be constructed from bits of language, with an emphasis on the understanding of poetic concept through the process of viewing and absorbing active components of text in real time. The hypermediated effects in these works transform shapes into recognizable patterns in a series of shifts that represent new modes of expression. Melo e Castro plots a visually driven narrative in which the malleability and flow of contemporary

text are on display. He illuminates how a combination of letters, symbols, and visual effects can be used to activate language, transmit imaginative ideas, and raise poetic questions.

Another of Melo e Castro's works, "Vibrações Digitais dum Protocubo Perante Seus Espectadores" (Digital Vibrations with a Protocube in the Presence of Expectators, 1989), is devoid of verbal elements (besides its title). Poetic narrative is enabled by symbols, spiny skeletal geometric shapes—which are revealed as the interstitial line of a cube—presented in an aesthetic one might associate with that of black and white television. A flickering cube (skeletal, with only its edges defined) is the central figure of the poem. As the cube moves to different areas of the screen, the visual perspective on the cube slowly shifts so as to reveal a larger picture. Throughout the video, washes of color and other processes obstruct the images, and ebb to reveal new views. The visual narrative presents both perfect and altered cubes in different dimensions. The central cube is reconstructed and duplicated on various parts of the screen; distorted, flashing cubes in motion compound the scene. This piece's continuous shifting of visual perspective, or display of multiple perspectives within a defined space, is significant as it serves to reveal a larger structure within which the materials subsist. Melo e Castro's effort here demonstrates that what we see—even on the confines of a monitor or terminal—can always be placed within a larger framework. Here the active framework is visual but also imaginative and conceptual. The viewer, without adjusting her or his vision, is presented with various scales of view within a single set of materials. Formally speaking, the poet shows that the image is not always what, or within the context that the viewer/reader expects it to be. Subjects, ideas, and objects (the cube and its imperfect compliment) are used instead of words to create a narrative that can be interpreted any number of ways, as in a poem. In one of his later collections of poetry, *Algorritmos* (1998), he entitles his introductory essay, "Uma Poética do Pixel," or "poetics of the pixel" (7). Though technically Melo e Castro is not composing with pixels at this juncture of his career, his works involve the inflation and transformation of pixels on a television screen. Melo e Castro has practiced this same idea, that every area of a given electronic "page," or page of a book, has dynamic capabilities, throughout his development as an artist.

Another type of abstract and layered approach to making a projected, non-interactive videographical digital poetry is found in Silvestre Pestana's work in the early 1980s, which is discussed and described as an "Infopoem" in "Poetica dos Meios e Arte High Tech."[1] In "Povo Ovo" (People-Egg) (1981), Pestana creates a program that generates a series of abstract images using the words "POVO" and "OVO" in conjunction with black blocks. Melo e Castro's book shows the progression of five separate frames in sequence, as well as the coding for the poem, in a version prepared for experimental poet Henri Chopin (Fig. 3).

---

[1] In the essay, Melo e Castro defines Infopoetry as work that involves computers that permit the treatment and production of texts determined by morphological and syntactic functions (58). It should also be noted here that earlier visual works by Erthos Albino de Souza, a Concrete poet, had appeared as a series of sequenced printout but were never animated in the way that Pestana's poems is.
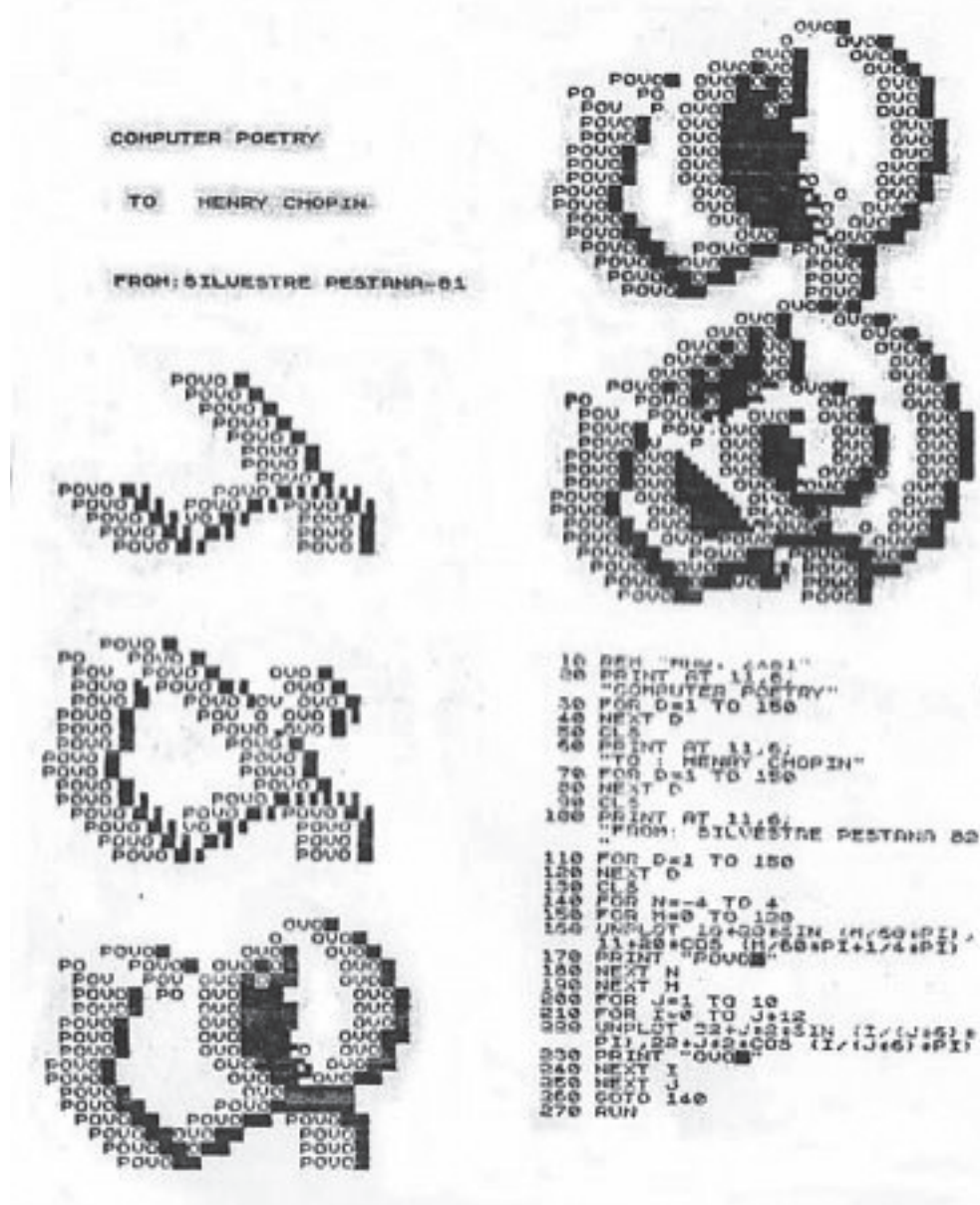
Fig. 3. Silvestre Pestana. "POVO OVO." Illustration of Output and Program Code. Illustration in E.M. de Melo e Castro, *Poetica dos Meios e Arte High Tech* (Lisboa: Vega, 1988), 94.

Presenting the poem and code together both documents the process and reflects the product of Pestana's work, which utilizes programming language to produce non-literal images and recombinations of language and shapes. The first frame displays a distinct but abstract shape constructed by stacking a combination of "POVO" followed by black blocks atop each other (and on one line the fragment "VO" appears); the second frame (read vertically) adds more "OVO" and "POVO" lines with blocks, and more fragments appear. Additions to, and deformation of, the text increase the amount of visual information presented through the next three frames. In the sequence of screenshots shown by Melo e Castro, the fourth and fifth "frames" appear to vertically blend into one another and double the size and shape of the image, whereas the three frames previous are discrete, and if anything, appears as a cumulative mutation of symbol and text. The work's status as printed documentation does not serve it well, as the shifting sequences and motion of text was a feature of the original conditions of the text. In actuality, the frames shown by Melo e Castro replace one another, as demonstrated in a second representation of the piece that is included on Eduardo Kac's International Anthology of Digital Poetry. Kac recreates "POVO OVO" as a movie based on stills reproduced from a collection co-edited by Pestana entitled Poemografias (Lisbon: Ulmeiro, 1985).[2] In the movie, which is based on Kac's recollections of seeing the piece in 1987, a series of approximately six images are set in a loop on the screen; the images in Kac's version differ slightly in content but share the same style of visual representation of its elements. Both of these records of the piece show that the process of layering words and symbols, on the surface of a screen or page, are being automated and crafted via computer program to be displayed on the screen. An informal reading of the code suggests that the program specifies the placement of text on the page, and that two separate documents are sequenced to appear on top of one another. The different iterations of the text demonstrate the multiple processes that inform Pestana's digital poem. Creating the code is a process involving writing commands to instruct the computer, the code in turn enacts the structural and presentational processes which are also multiple but occur in a precisely plotted sequence.

In 1982, Julio Plaza—a Spaniard who has lived most of his life in Brazil—designed two variations of a work titled *luz azul*, which are illustrated in his critical monograph *Processos Criativos com os Meios Electônicos: Poéticas Digitais* (*Creative Processes with Electronic Media: Digital Poetics*). This palindromic poem was given two distinct and separate illuminated electronic treatments, one was produced on video, the other as an electronic billboard. In the video, Plaza uses a generic computer display font to project the words "azul" (blue) and "aluz" (alight) in alternating sequences, offset against a sharply contrasting and visually defined yet shifting background. Like Melo e Castro, Plaza's piece acknowledges the illuminated principles that enable his words to be presented as such, and the fact that letters that comprise words can be easily, seamlessly shifted (in this case, partially reversed) on the screen. Combined with shifts in color or contrast, even a few letters can begin to represent more than they would when fixed on the page. The second version of the poem was presented on a thirty-foot wide light-panel electronic billboard that was installed in São Paulo, Brazil.

---

[2] This information is provided by Kac in the "ReadMe" file associated with Pestana's work that is included on Kac's International Anthology of Digital Poetry (1997). Coincidentally, the version of the poem showed by Kac is dedicated to Melo e Castro (ReadMe).

In this iteration, the medium enabled Plaza's projection to incorporate elements of plastic resolve not encompassed on the video. The same words, "ALUZ/AZUL," are used, but morph into one another in a much different way, as the billboard was comprised of many different light bulbs that could be programmed so as to appear to gradually fade in and out, giving the work a pixilated dimension that would now be associated with the types of fading techniques that are used in hypermedia presentations on computer screens (particularly those made with Macromedia Flash or Microsoft's PowerPoint). This public display of electronic text with image effects may have been the first poetic endeavor of its kind. From the outset of the genre, artists aspired to be innovative, using tools produced for scientific calculation, business, and the management of information in order to do so. Plaza's idea to take advantage of the tools used for marketing and advertising for creative purposes was a promising one that became a legitimized approach to expression that would be used by subsequent generations of literary and visual artists in the Americas, perhaps most notably in Jenny Holzer's "Truisms."

During the 1980s, a number of Brazilians—in part encouraged by the Concretist model of passionately striving for innovation—were actively exploring the possibilities of kinetic poetry and inventing their own routines. Plaza's study documents several of these artistic works, which I will briefly introduce here. Alice Ruiz developed a simple, haiku-like presentation, "acende apaga…apaga acende…vagalume" (lighting erasure/erasure of lighting/vaguelight), which, like Plaza's videotext, utilizes a basic interface (white text on dark background) to present in sequence the three brief verbal segments of the title in different locations on a line in the middle of the screen without graphical adornment (Plaza 133 trans. Funkhouser).[1] The second segment in the piece is a linguistic inversion of the subject and object of the first. Kinetic qualities, easily enabled by the media and a simple program, accentuate the mechanical reversal of language in a slight yet clever manner to make a cause-and-effect statement devolve to a pronouncement of effect-and-cause, which is not resolved by the conclusion but made more indeterminate. Plaza suggests that the poem appears to be an analogy for the onset of night (132). However, the ambiguity of the language also seems to momentarily suggest an uncertainty in the potential for language to be supported by light, given that an electricity-dependent computer terminal is the mode of presentation. "acende apaga…apaga acende…vagalume" is a revelatory, speculative poem that despite its efficient production and delivery holds multiple meanings. Whether on not it represents a view on the technology being used to present language or not is not as important as the fact that the viewer is presented language that momentarily projects ideas for the viewer to contemplate. A different style of work is seen in Lenora de Barros' "Entes…Entes…" ("Beings…Beings…," 1985). In this piece, mirrored word forms are sequentially molded into different twenty line patterns, becoming gradually compressed into blocks. At first, a minimalist ten line poem appears twice: initially justified with the left margin, and also, on alternating lines, with the right margin, as seen at the top of Fig. 4.

Fig. 4. Lenora de Barros. "Entes…Entes…." Illustration in Julio Plaza and Monica Tavares, *Processos Criativos com os Meios Eletrônicos: Poéticas Digitais.* **(São Paulo: FAEP-Unicamp Editora Hucitec, 1998), 156.**

As the initially separate halves of the poem begin to merge, a type of activated concretism is enacted, causing a reader's perception to shift. The viewer is left to wonder what becomes of the poem—and why—as the line length compacts from eighteen characters, to ten, then six, then two, leaving first fragments of words then only syllables. The program squeezes the verbal information into a state beyond semantic recognition. The visual activity of the poem serves to enact the verbal content, as the poem in translation reads: "beings/are/between/crossing/and almost/near/hiding/kisses/that never/meet" (156 trans. Funkhouser). The merging of the poem, which results in a breakdown of communication, digitally illustrates the sentiment expressed in the design of the program.

Plaza's study also chronicles Augusto de Campos' initial foray into digital writing, the 1982 realization of his 1955 poem "pluvial…fluvial." In de Campos' piece, two six line pairings of text derived from both words of the title are connected into a twelve line belt of words and word fragments that are programmed to sweep horizontally across the screen and morph into different patterns and permutations of the root words. Plaza, in reviewing the piece, writes that the movement of the programmed characters gives the sense of "creating two references: rain and river" (157 trans. Funkhouser). A movement is established that activates the natural conditions of the verbal and visual concept designated in the title, thereby representing a formation of electronic concretism, a pursuit that has been taken up (or otherwise responded to) by many artists since this early manifestation of such work.[1]

Several of Eduardo Kac's non-holographic kinetic works, which become more sophisticated over time, appear on the *International Anthology of Digital Poetry* CD-ROM.[3] The earliest presentation, "Não" (No), recreates Kac's first digital poem (1982) which was organized as a series of five blocks of texts containing one nine letter noeologistic fragment each: "OPOETAESS," "ECARASEMP," "REVAIDECA," "RACONTRAO," "CORODOSIM" (Anthology Readme). On the CD-ROM the piece resembles a common LED screen (electronic lightboard), on which words comprised of red dots scroll across the screen from right to left in timed sequences (equal intervals), with a momentarily empty screen during the transition between words. Reflecting on this work Kac explains that the "visual rhythm" is thus created that alternates, "between appearance and disappearance of the fragmented verbal material, asking the reader to link them semantically as the letters go by" (readme). The combination of programmed graphical cadence and the viewer's understanding of the poem—a cyborgian coupling—makes the poem what it is. His next animated poem, "CAOS" (Chaos) (1985), was originally created using the French Minitel system that enabled retrieval of data from remote locations via the telephone, and was meant to be read on public or private terminals, or terminals installed in museums. The CD-ROM version of the poem was renamed "Recaos" and recast using the Macromedia Director software program. "Recaos" is a brief, simple illustration of kinetic letters and the permutation of language through shifts in color; it is a rudimentary example of the type of work that was explored with great rigor by artists whose work appeared in the French hypermedia journal *Alire* circa 1989-1995. In his author's note, Kac writes that his programming of the letter "c," which is constantly in motion, intends to impart a "rhythmic behavior," and that the shaping of the letters represents both an hourglass ("slow passage of time") and an infinity symbol ("time beyond speed"); a second poetic implication of Kac's design involves the transformation of "c" to other letters to form words (e.g., "caos," "sos"), which leave, writes Kac, "a mnemonic trace of other words, such as só (alone) and ossos (bones), in Portuguese" (Anthology readme). Kac, as so many digital poets have before and since, manipulates the internal components of his poem in such a way that the new words that appear are built from the old ones, or that appear in fragments that the viewer uses to build a sense of language and meaning.

---

[3] Though Concretism was, and remains, a distinct and important influence in Brazil and elsewhere, not all multimedia artists aspired to re-embody its tenets. For instance, Brazilian digital poets like Philadelpho Menezes and Wilton Azevedo sought to develop methods that were contrary to Concretist practice, notably in works included on the CD-ROM Interpoesia (1997-1998). Kac is also known as being among the pioneers (along with Richard Kostelanetz) of holographic poetry.

In the 1990s, Brazilian André Vallias began to use animation and other media and techniques in the designs of his poems, a re-direction indicative of the inclination to incorporate kinetic elements that had been gradually happening in several areas of digital poetry (e.g., in coded works, videopoems, and holography). As in static works he has produced (e.g., "Nous n'avons pas compris Descartes"), Vallias' early interactive works minimize the role of language altogether. His first piece, "IO" (1994), is an intriguing visual poem that first appears on the screen (accompanied by a pulsating electronic soundtrack) in high resolution as a rough round brown object with a hole that has smooth edges in it. Arrows in the cardinal directions provide a means with which the user pivots the floating object around an axis in the virtual space; activating the arrows layers new sounds into the aural mix. Eventually, the surface of the stone becomes translucent, looking like an opaque orange balloon with a test tube stuck in it (See Fig. 5 for model). As the circumference of the shape is explored, its lucid, realistic form is revealed. When the object gets to a certain position, clearly the letters "I" and "O" emerge as visual verbal data. Messages that appear in the margins of the poem include the phrase "Input/Output," indicating the idea of the primacy of cybernetic engagement in the digital poem. To begin, "IO" looks like a picture, which becomes a visual poem upon the user's ignition and sustained participation with the materials; it is activated, revealed, and explored via moving and clicking with the mouse on the arrows at the perimeter of the image. The internal and external structures that the artist has built to support the shape are both exhibited, as the viewer shifts between solid and transparent views. The other invisible aspect of this (and most) works is the algorithmic/programmatic information; despite the "coded" information that is being presented, the computer code used to produce "IO" is also completely absent from view. What is important is that in manipulating the surface, viewers are conveyed a sense of virtual tactility, and the fact that a transformation in form takes place with every movement. This dimension is not adequately emulated via the two static images with which Vallias represents the piece on his WWW site, though the sense of the way letters appear and disappear in "IO" is evident in these examples he uses to represent the piece on the WWW (Figs. 5, 6).[4]
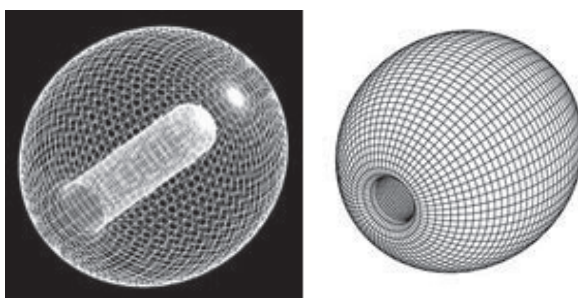
Fig. 5 and 6. André Vallias. Illustrations from "IO." Screenshots taken from the author's WWW site. http://www.andrevallias.com. 4 May 2004.

_____

[4] In the WWW rendering, which is a Flash movie, the users navigate between these two images that morph into each other when clicked.

Unlike many works in video and hypermedia, the visual poems that Vallias was creating did not operate independently; it is a structure set up by the author for individuals to engage with, before and during any interpretive activity can occur. As with many works in the area of text generation, the user's input ignites the output of the poem, albeit in completely different ways. The most obvious artistic forbear to this work, though it would have been unknown to Vallias at the time, is Alan Sondheim's 1971 video piece "4320," in which the viewer is only presented with an object to interact with and no language is present. Vallias continues to be among the leading designers of interactive, multimedia, symbolic poetry in pluralistic, hybrid forms, though numerous other artists have since profoundly styled Portuguese, visual language, and imagery into interactive works (not always together).

Before his death Philadelpho Menezes (in collaboration with Wilton Azevedo) produced a series of works that contain interactive features on a CD-ROM entitled *Interpoesia*. This publication includes the piece "Máquina" (Machine) in which a likeness of a simple mathematical calculator is used as an interface (though it does not function in its normal capacity). The viewer must work to discover that a pre-scripted path is followed; touching numbers on the keypad orders a line of numbers, which are accompanied by the pronunciation of the sound of a letter. The pattern of numbers, when inverted on the calculator display, announces "poesia" (Interpoesia). This illustrates in a quirky way that numbers can become letters—as they do more complexly in computer coding—and how the multiple functions of the computer enable a fusion of elements into poetry using various digital techniques. Pedro Barbosa, has begun to incorporate generated text in an interactive 3-D hypermedia environment. Barbosa refers to his most recent work, *Alletsator*, as "opera" or "cyberdramaturgy" that is sequenced by the viewer, guided by an onscreen robot (or, in computer gaming lingo, "avatar") named "Anaximandro Macromedia," through a rich graphical environment while Barbosa's generated poems are recited (Email). Participatory works by Arnaldo Antunes, Henrique Xavier, João Bandeira, Jorge Luiz Antonio, Omar Khouri, and Ronaldo Azeredo are included on a 2003 digital poetry CD-ROM, *Revista Cortex* 1, co-edited by Guiherme Ranoya, Lucio Agra and Thaigo Rodriguez.

Described above are a few examples of works by artists who made pioneering efforts to unite poetry and video. The inclination to display poetic work in such a way was years ahead of its time, but has since become a path followed by many others, particularly during the WWW era. These experiments represent an important and fascinating step in the production of poetry; this work represents the pioneering efforts in making written language not only visual but also putting it into motion. Using the tools of another medium (video/television/film) to present poems, the applications of technology put into practice here initiated a period of visually kinetic works that has been practiced ever since. Digital poetry's emphasis on cultivating active language added to its canon of generated and graphical texts the dimension of overtly kinetic language. Artists have used alternative approaches to making videos for three and a half decades; their work has helped to establish videography as a widely accepted artform.[5]

---

[5] Even the relatively conservative Metropolitan Museum of Art in New York began to add videos to its permanent collection with the purchase of Bill Viola's work "The Quintet of Remembrance" in 2001. For the majority of art institutions (i.e., museums and galleries) video has been promoted a legitimate form that has been promoted for many years.

Videopoetry is a verbally based tangent of video art that has used both conventional and very unconventional techniques to project activated text. Yet the movement, or motion within videopoems, in many cases, does not involve characters moving around on a stage but rather use the terminal screen as a stage for language. Even though documentary and MTV-style productions that treat individual poems have proliferated (poetry video), machinated forms of poetry produced using materials and techniques that are exclusive to video and de-emphasize if not ignore the human subject altogether have existed from the start. Such work has in fact made a resurgence due to the multimedia textuality that is encouraged and supported by the WWW. The fundamental advancements that followed videopoetry (which followed visual poems and text-generated poems), materializing in the late 1980s, were hypermedia and hypertext. These tools enabled the ability to create links within and between texts while simultaneously incorporating visual, kinetic, sonic, and static verbal text. Once hyper- works were developed, all of the principle possibilities of contemporary digital poetry were available and, synthesizing and cultivating practices in each of its modes, the genre has proliferated.

Works Cited

Azevedo, Wilton. *Interpoesia*. Online.
  http://www.mackenzie.com.br/interacao/www2003/interpoesia.htm.
  27 April 2005.
Barbosa, Pedro. Email to Christopher Funkhouser. March 2005.
Cayley, John. *Indra's Net* (or *Hologography*) (author WWW site). Online.
  http://www.shadoof.net/in/. 14 February 2004.
Kac, Eduardo, ed. *International Anthology of Digital Poetry*. CD-ROM. Chicago:
  New Media Editions, 1996/97.
- - - , ed. *New Media Poetry: Poetic Innovation and New Technologies*. *Visible Language*,
  Vol. 30, No. 2, 1996.
Melo e Castro, E.M. *Poetica dos Meios e Arte High Tech*. Lisboa: Vega, 1988.
 - - -. *Antologia Efémera: 1950-2000*. Rio de Janeiro: Lacerda Ed., 2000.
 - - -. *Algorritmos: Infopoemas*. São Paulo: Musa Editoria, 1998.
 - - -. *Infopoemas*. Videotape. São Paulo: Philbus, 1998.
 - - -. "Videopoetry." *New Media Poetry: Poetic Innovation and New Technologies*. *Visible
  Language,* Vol. 30, No. 2, 1996: 140-149.
Menezes, Philadelpho and Wilton Azevedo, eds. *Interpoesia*. CD-ROM. São Paulo:
  1998.
Plaza, Julio and Monica Tavares. *Processos Criativos com os Meios Electônicos: Poéticas
  Digitais*. São Paulo: FAEP-Unicamp Editora Hucitec, 1998.
Ranoya, Guiherme, Lucio Agra and Thaigo Rodriguez, eds. *Revista Cortex* 1.
  CD-ROM. São Paulo: 2003.
Stefans, Brian Kim. *Fashionable Noise: On Digital Poetics*. Berkeley, CA: Atelos, 2003.
 - - -. Stefans, Brian Kim. "The Dreamlife of Letters." Online.
  http://www.ubu.com/contemp/stefans/dream, 21 March 2005
Vallias, Andre. Author WWW site. Online. http://www.andrevallias.com. 4 May
  2004.
Zervos, Komninos, ed.. *Cyberpoetry*. Online.
  http://www.griffith.edu.au/ppages/k_zervos. 14 February 2005.