

THE DESTRUCTION OF TEXT IN POLISH E-LITERATURE

AE by Robert Szczerbowski and electronic poetry
by Perfokarta

Emilia Branny-Jankowska

Nin-sene.sense is too binary
andoppostioin, too much oall or nithing

— writes Charles Bernstein in “A defense of poetry”. Does it mean that between sense and nonsense there is an infinite number of points, in which poetry has its proper place? David Melnick, an author of even less legible poems, explains further:

What can such poems do for you? You are a spider strangling in your own web, suffocated by meaning. You asked to be freed by these poems from the intolerable burden of trying to understand. The world of meaning: is it too large for you? too small? it doesn't fit. Too bad. It's no contest. You keep on trying. So do I. (Melnick 1978)

These words reveal a very important hope and promise connected with modern poetry: to transcend the ways of understanding associated with and imposed by language. The artists mentioned above try to achieve this postulate by introducing typographical changes and partially destroying the surface of language. This affects the reading process: the signifier is no longer a static object which contains or transmits meaning, but it has to be restored or modified by the reader. In Bernstein's poem, the reader is able to complete this task, whereas most poems by Melnick remain uninterpretable. They can only be analyzed as a mix of letters and transformed fragments of existing texts (including e.g. an Ichthyology textbook), thus introducing a kind of typographical intertextuality. The goal of these po-

ems is to provide the reader with the experience of meaning-making which is not successful, because the signifier has been interfered with and is no longer representative.

Similar ideas and means are behind a considerable part of Polish electronic literature. The destruction of textuality seems to be the key issue both in the first known Polish hypertext, *AE* by Robert Szczerbowski, and in the majority of electronic poems by the Per-fokarta group. The goal of these works is to allow the reader to transcend the barriers of language as a system by involving him/her in a game with the signifier, which leads to the estrangement of the textual surface and makes it impossible to be read in a conventional way.

Robert Szczerbowski on language and cognition

AE, originally published in 1991 as an artist's book without a title, was reissued on a 3'5'' disk in 1996 and then adapted for the Web in 2003, its current name derived from *anepigraph*, a work without a title. The narrator and the subject of the work is the text, which is creating itself in front of the reader's eyes. In the first lexia, *AE* forks into two autonomous parts, *A* and *E*. The first one is a monologue, consisting of seven sequentially ordered lexias that resemble pages of a book. Page numbers, each one being the square of that which precedes it (2, 4, 16...), link to the next lexia, thus, creating a cycle without branches. Part *E*, to the contrary, is structured as a web of links and remediates an encyclopedia.

A is the product of an "impersonal and self-creating" (Rypson 1996) power of text that sequentially generates the linguistic substance. The words and sentences seem to be a self-expression of textuality which is proliferating abruptly and chaotically right in front of the reader:

this is me. me scripture, this is a set of words. I word among I words (...) and talking again: not to express: to press. if a book, self leafing. an infinite puzzle of signs (Szczerbowski: A2).

Neither the author, nor the reader can master this kind of text. It can be used neither as a means of communication, nor as a tool to achieve a goal: it becomes a presentation without representation, as the author and the topic of the monologue is the text itself.

The encyclopedic structure of *E* seems to be an attempt to overcome the illegibility of *A* by creating a system of interpretation and assigning a definition to each word. However, it proves unsuccessful, because the definitions fall into chaos. Even the list of concepts includes words from different registers of language. Ideas such as “perpetuum mobile”, “language”, “word” or “automatism” are intermingled with neologisms like “selfing”, “happen itself”, “autoprompter” and colloquialisms, such as “here and there”, “nitty-gritty”. There are also words in conjugated forms, like “I am” or “look!”, as well as pronouns such as “where from” and “how”. All the entries are not connected to the same topic, although linguistic and epistemological terms dominate this encyclopedia.

At the heart of *AE* is a conflict between two tendencies of language. One of these tendencies is to organize information and create a coherent and stable system of representation, in which language is subjected to the logical mind. The linguistic system binds each sign with its inter-subjective interpretation, thus enabling representation and at the same time defining all possible sentences that can be used to refer to reality (cf. Buczyńska-Garewicz 1994: 80—81). The other tendency of language is to transgress the system in order to express that which is currently unknown and impossible to describe. While the system is universal and not subjected to time, its disturbance can be created and understood only in particular circumstances, by a reader whose mind grasps something that does not fit into language. It may be just an impression invoked by a combination of signifiers that is not valid within the linguistic system.

Such situations may open up and broaden the language, if the newly invented ways of expression are confirmed and stabilized by the usage (cf. Buczyńska-Garewicz 1994: 81).

The two contrasting tendencies of language correspond to two aspects of interpretation. The encyclopedic structure of *E* matches the interpretation as a text explaining another text, whereas, the sequential monologue in *A* matches interpreting as an act. The two aspects of interpretation are intertwined: *A* must use words that are explained in *E* and belong to the system of language. Otherwise, it would be impossible for the reader to understand. On the other hand, *E* is not perfectly coherent as it tries to include the sense of the words as they are used in *A*. Thus, both the selection of entries, and their definitions, seem strange and hermetic for a model reader.

AE creates a linguistic space, in which a quest for expression takes place, while the two aspects of interpretation clash. The conflict engages the reader, as he is the one who expects the text to mean something. The reader thus tries to overcome the chaotic and hermetic self-presentation, master the signifier, and force it to represent something. At times he is successful, but only for a short while, until the substance of the subsequent words destroys his construction and forces him to try again.

Szczerbowski's work concerns the evolution of language and its connection with epistemology. From the point of view of generative grammars, language is a stable system in which any possible message is absolutely predictable. However, this idea does not account well for cognition and real communication in ever-changing circumstances. Szczerbowski's experimental piece shows that transcending the existing linguistic structures is necessary in order to transcend the limits of understanding, yet consequently the message becomes hardly comprehensible. Surface intertextual references allow us to interpret *AE* as an ironic presentation of the current ways of cognition, and of touching upon the unknown by art and philosophy. *A* is a parody of a certain concept of textuality that focuses on

the text itself, while *E* criticizes philosophy as a system of assigning new meanings to arbitrary chosen words, already defined in the system of language. At the same time, *AE* itself uses new ways of expression, such as an artist's book and hypertext, which serve the same purpose: describing that which remains unavailable within traditional texts.

Summing up, *AE* is a study of the conflict between system and exception within language. This conflict is represented in the ergodic work of the reader, who follows the flow of the text, welcoming all its harmonies and trying to overcome the inconsistencies. It is the desire to understand that sets the text into motion and fills a static combination of words with a dramatic tension. However, the text finally refuses to reveal a uniform sense: its meanings seem to be more a network of possibilities than a coherent whole. The sense may be attributed only to the situation of the reader, whose experience of construction and destruction of the text allows him/her to go beyond the limitations of language and places him/her in the gap between the textual and the real.

Perfokarta: the revolt against the word

The disruption of meaning is also the key to Polish cybernetic poetry, as it is practiced by the Perfokarta group. The Perfokarta poets, including Roman Bromboszcz, Tomasz Misiak and Łukasz Podgórn, draw on Dadaism, Fluxus, futurism, visual and concrete poetry (Pisarski). Their fascination with technology as a means of interference and disruption applied to the signifier, results in a distinctive aesthetic project that could be called "broken machine aesthetics". Perfokarta violates the language and methodically distorts the messages in order to achieve the desired artistic effect. The pieces are usually multimedia, sound and image being used as the substance along with the text.

In his *Cybernetic Poetry Mechanism 1.1* Roman Bromboszcz writes as follows:

Let us consider writing/reading as a communication process in which the writer/reader communicates with himself first, and with others only later. Instead of seeing a poem as a body, let us see it as a machine. Instead of agreeing to language, let us disagree with it. Instead of describing, let us change.

The so-called inspiration fades into the background, and sometimes even totally disappears. Systematic conversion and destruction of a ready-made verbal matter eliminates both habit and style. The statistics and theory of information. Collage and installation/assemblage. Collage and montage.

Language is violated both in the course of creation and interpretation of the poem. The author's violence against language can be manifested in different ways. Practices akin to the methods used by L=A=N=G=U=A=G=E poets are used, for example, by Roman Bromboszcz in *krach giełdy olejowej* (*an oil market crash*). The piece features an unintelligible text, arranged in lines of equal length, moving downwards across the screen. The text is interspersed with a few recognizable words, such as "feebly", "tender", or "CRASH", and sequences of letters that resemble Polish words, but which do not mean anything, e.g. "ścięgnościkawadydarzeń" or "tłkły". The entire text is nothing more than machine-generated jabber, resembling computer program code opened by the wrong viewer. The resemblances to Polish are there to reinforce the expectation that the character-generating process will lead to the emergence of some kind of meaning. However, the expectation is not satisfied.

When the text-generating process finishes, a slowly rotating, two layered construction of letters, dashes and dots appears on the screen. This spatial structure, which seems to be an answer to the reader's effort to understand the poem as a whole, is the quintessence of unintelligibility and distortion. Since it consists of two layers, it seems to reveal the process of its own creation. As the creator fills the rows with letters and dots, forming a defective text,

the letters become distorted into a mirror image of themselves. This deformed layer is in fact a deconstructed textuality, an imitation of a poem.

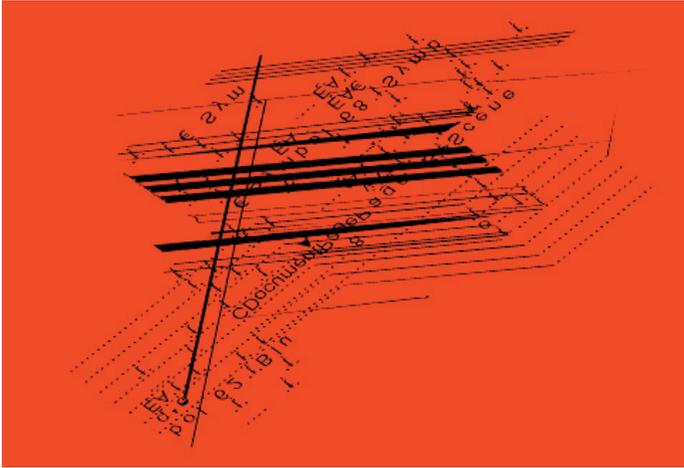


Image 1. A screenshot from “An Oil Market Crash” by Roman Bromboszcz

The second layer is comprised of parallel lines, running at an angle towards the text. Those lines make the text even less legible and create the impression that it is a three-dimensional object. The structure, which rotates constantly, can be approached from multiple perspectives. Nevertheless, it is impossible to look at it from the opposite side, overstep and ignore the lines distorting the text. In this situation, the text, as well as the whole poem, ceases to be a linguistic or graphical sign because it refuses to mean anything. It can only be understood as an outcome of certain actions performed mechanically on lines and letters¹. The poem criticizes the idea of a literary work as a carefully designed meaningful structure, and challenges the possibility of interpretation of automatically generated texts.

The Perfokarta poets who consciously act against clarity and intelligibility of language frequently draw their inspiration from lettrism, as well as visual and concrete poetry. Destroying the text often involves breaking down linguistic structures (usually words) into components (letters) that become the object of transformation in time and space, thus disrupting the linear order of the text. The examples include *rotator* and *totem* by Bromboszcz. In these poems, the letters and their configurations move across the screen in different directions, to some degree determined by the reader. In *krzyknik* (*clamation*) by the same author, it is an exclamation mark that is broken into two parts, and in *spawy* (*welds*) each letter is cut in two. *Rotator* and *spawy* constitute model examples of concretism. The letters as moving objects create a kinetic image whose meaning exactly matches the meaning of the destroyed word. In this way the structure of the sign changes entirely. Usually a word refers to an absent object. In contrast, here the simulated object refers to a deconstructed word.

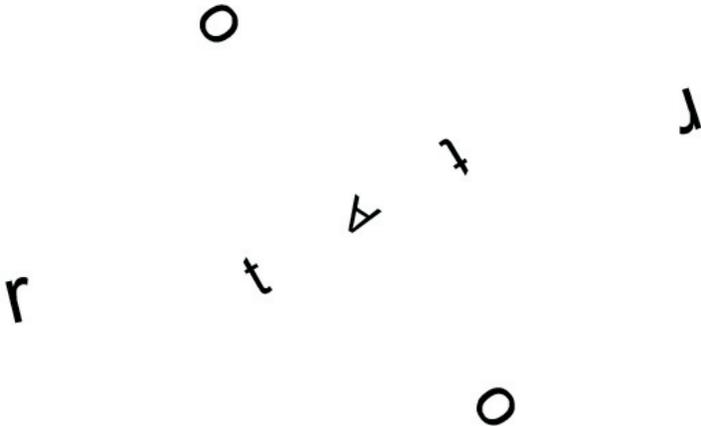


Image 2. A screenshot from “Rotator” by Roman Bromboszcz

The connection between the destruction of language and visual or sound poetry was well described by Lionel Kearns, one of the Canadian poets using electronic media. According to him, the essence of destruction is to free the word of its reference, which makes it possible for the author or the reader to replace it with a new reference:

if one messes around enough with the physical form of language (either spoken or written), eventually you get to the point where it (the language) drops its load of conventional reference. When this happens you no longer have language because (by definition) language must have reference. Right on that edge, where language begins to move into either music or visual art--that is the place where sound and visual poetry start to occur" (Kearns: [kearnsframeset]);

I think the key term here is "conventional". When the agreed upon references fall away from the form, the poet (or the reader or the audience) has a chance to hang other pieces of reference on it in place of what was there before. (...) We hear a piece of instrumental music at a certain moment, and thereafter associate that piece with what was going on for us at that moment. We hang our own personal reference on it (Kearns: [lionelportrait2]).

In electronic poetry the new relationships that substitute the conventional references are usually facilitated by the algorithm. A popular practice in Polish cybertext poetry is to program the movement of individual letters or sets of letters, as in *23.59.59* by Bromboszcz or *Meditation No 4* by Wilmański. The signifying pieces are devoid of meaning but they gain visual and sound features instead. Other poems such as *Whirlpool from Liverpool* or *krytyka chleba, gwiazd i kamienia (wieczne demo) (criticism on bread, stars and stone (eternal demo))* by Podgórní, connect the text, the sound and the image within a complex mechanism. The connections that replace the meaning are based on physical proximity or causality and do not support the notion of a harmonious whole. On the contrary, they seem to exemplify the deconstruction of language. This can be seen in *Whirlpool from Liverpool*, especially when contrasted with *Nio* by Jim Andrews.

Both pieces are based on a visual pattern that determines the placement of letters, syllables or phrases. In the poem by Podgórní the layout is that of a keyboard, while in *Nio* it is that of a clock, where different letters or their combinations replace the hours. In both works, the letters are paired with sound patterns repeated as long as the corresponding letter key is active. In *Whirlpool from Liverpool* these are the recordings of words, phrases or syllables, made deliberately in poor quality and with audible interferences. These textual fragments include non-existent words, such as “a grananan”, derived probably from the neighboring “anagram” and “gram”. The disruptions and distortions create an impression that the words, as observed and heard, have been interfered with and transformed by a machine. The same conclusion can be drawn from the keyboard layout and from the presence of phrases, syllables and neologisms that do not make sense either apart or together. However, the poem is not absolutely incongruous. It can be easily seen that most of the linguistic hybrids have been created by mechanical operations on existing words and neologisms and phrases present in the poem. This seems true for a number of groups, such as: “on the other” and “on the other side”, “there is moat” and “there is heart”, “anagram of sodium”, “anagram of ferrum” and “anagram of mercury”, as well as “gram”, “grananan of a monkey” and “anagrammarine rama”. This way Podgórní makes an ironic comment on traditional poetry, where orchestration and parallelisms are popular artistic techniques.

In contrast, in *Nio* the sounds are clear, rhythmical, and nice melodies are produced by a person who sings, whistles or murmurs letters and their combinations. Not all combinations of sounds are allowed: when certain buttons are pressed, the system automatically disables others. This does not happen in the poem by Podgórní, where the reader is absolutely free to mix the sounds even if the results are unpleasant and incomprehensible. Thus, the idea of harmony as a poetic imperative is challenged. This very difference between *Nio*

and *Whirlpool from Liverpool* reveals the main concepts standing behind these two pieces. The goal of the former is to dismantle the text in order to create a multimodal and synaesthetic harmony, while the goal of the latter is to deconstruct textuality and affirm the distance between the human and his/her language.

The reader is invited to destructive practices also in *krytyka chleba, gwiazd i kamienia (wieczne demo)* by Podgórní. The instruction states explicitly that “the objects are to be clicked, the objects are to be dragged and dropped, the objects are to be tamed, the objects are to be invaded at”². The reader is offered a multimodal space, where the letters are objects and may be manipulated. Podgórní’s work is a colorful, moving surface, the basic unit of which is a square. The behavior of the objects is unknown to the user and the interaction appears to be a struggle to master the system: the reader is trying to force the poem to reveal sense and rules of operation, so that the interaction could become a victorious game. However, the system as a whole seems too complex to be understood. Regularities may be observed only in some parts or aspects of the poems. For instance, eleven manipulable squares with letters and symbols generate predictable sounds when placed in certain areas of the screen. The reader tries to use the pieces to influence the rest of the system, but it does not prove effective. In some aspects, the behavior of the surface is regular, e.g. a rapid invasion of colorful squares repeats cyclically, but the whole logic of transformation remains obscure. The interaction changes into chaotic manipulation with squares, pressing random keyboard keys and helpless clicking all over the screen. This way the reader interferes with the system, introducing even more disruption and confusion, instead of creating anything sensible. The promise of destruction and freeing the reader from the restrictions of language is fulfilled on two levels. Firstly, the poem presents a deconstructed and transformed signification system, in which the reference has been replaced with a complex kinetic logic. Secondly, the reader’s

obligation to find or create sense is suspended, which satisfies the postulate by David Melnick, cited at the beginning of this article.

Conclusion

The idea of destruction of textuality and meaning is an important topic in Polish electronic literature. The authors draw heavily on the European avant-garde tradition, but at the same time parallels may be seen with American poetry, including that of L=A=N=G=U=A=G=E group. Common practice of the “destructive current” is to free the signifier from its linguistic system and employ it within an arbitrary mechanism presented to the reader. His/her interactive involvement leads to further disintegration, as all the resemblances of the work to known texts are nothing more than false clues. As they are limited to the surface of the signifier, their identification and interpretation does not lead to understanding. The sense of the works seems to be the experience of destruction.

At the same time, as it has been mentioned earlier, the “destructive current” of e-poetry reveals an important link with the concept of deconstruction³. The common idea is to detach the word from its meaning and focus the attention of the reader on the materiality and rhetoric of the text. It reveals the ambiguity and preconceptions that determine the referential aspect of language (cf. Markowski 2006). Electronic poetry achieves a similar goal by using kinetic or visual displacements that destroy the textual layer of the poem, making it practically illegible. The reading process does not lead to global signification and finally the reader is forced to abandon the idea of discovering or imposing a single meaning on the text. Instead, the encounter with the work reveals a number of figurative structures, such as parallelisms, ellipses, and anagrams, created by mechanical operations enabled by the medium. The essence of this kind of e-literature is an ironic play with the materiality of the signifier

that produces, questions, and constantly redefines the relationship between a word or text and its meaning.

The “destructive current” within electronic literature has not yet been fully understood and appreciated within literary studies. It seems that one of the main reasons has been the methodology that could not fully explain the sense of these works. Even the notions of aporia and epiphany in Aarseth’s sense too often refer to the structural completeness and incompleteness on the purely textual level: the former is usually nothing more than a roadblock in a game, or the missing part of a story, whereas, the latter allows the text to overcome the incongruence and to arrive at an acceptable whole (Aarseth 1999: 38, 1997: 91—92). Therefore, the experience of destruction or deconstruction is not a valid epiphany, especially if the reader seeks the opposite. How to explain or justify this fundamental flaw in the cybertext structure?

The problem has been noticed by Aarseth in his account of the reading of *The Speaking Clock* by John Cayley (Aarseth 1999: 40). The encounter with this peculiar cybertext raises more questions than answers, and in fact does not bring any obvious epiphany, apart from the notion that the topic of the work is the “profound enigma” of time and experience. Aarseth seems to suggest that the aporetic nature of the work represents or investigates a certain aspect of existence. As a reader, he arrives at a peculiar kind of epiphany by finding such an interpretation of the work that allows him to attribute sense to the incongruent cybertextual sequence.

Referring primarily to the study of textual media in terms of cybertextual mechanics, Aarseth’s theory focuses on the materiality of the text and is not meant to explore the meaning-making process. The “destructive current” seems to need a refined approach that allows for the problem to be placed in a broader context in order to understand the clash between the reader’s expectations and the experience of reading. This approach should take into account the double nature of aporia. Firstly, being an inherent part of the

cybertextual process as presented by Aarseth, each aporia engages the reader in the role of the operator, who is actively trying to overcome it. Secondly, an aporia is always rooted in certain preconceptions of the reader concerning language and literature. The meaning-making process and the behavior of the reader depend on these preconceptions, which are sometimes deliberately played with or undermined during reading.

Consequently, the aporetic-epiphanic process may be described in light of promise and desire. This view shifts the focus to the reader as an active and motivated subject who responds to the promises made by the cybertext. The textual layer of “destructive poetry” activates two different kinds of reader motivation. On the one hand, by calling themselves literature, the works activate the reader’s quest for meaning, based on a certain horizon of expectations. On the other hand, theoretical manifestos and other signals, such as the lack of title in *AE*, claim exactly the opposite: the referential function of the text is to be abandoned. The former promise lures the reader into the cybertext and drives forward the interaction, whereas the latter explains the real function of the work. This function is to undermine the reader’s expectations and reading habits, freeing him/her from the imperative to understand and provide him/her with the experience of textuality in process, where the signification is being created, destroyed and transformed. A cybertextual literary work is no longer supposed to be a masterpiece, a representation or even a coherent whole. Instead, it becomes an invitation to an interactive process of play against language (cf. Hayles 2006: 181). However, in the end the idea of destruction and creative freedom is also no more than a promise, matching the reader’s desire and leading him into the game. The game will last as long as the reader’s hope to fulfill this desire through the movement of the signifier, or his/her belief that the promise is actually being fulfilled.

Footnotes

- 1 These operations can be compared with drawing patterns e.g. during a prolonged phone call or a boring lecture. We usually begin with putting a simple figure on the margin, and then fill up the space of the page gradually, as the conversation continues. The picture evolves without a general plan or meaning.
- 2 The mistake is deliberate, in order to express the meaning of the Polish word “najeżdzać”.
- 3 I call the whole trend in e-poetry “the destructive current” and not the “deconstructive current” because there is no evidence that it has been inspired by deconstruction. Neither does any poet explicitly reference deconstruction in theoretical works or manifestos. However, if deconstruction is understood as a critical method of reading and an attitude towards language and literature, then “the destructive current” seems to share many of its assumptions. It must also be noted here that “destruction” in e-poetry does not imply an absolute negation or annihilation of textuality, but a playful substitution of existing linguistic and literary structures by alternative, temporary constructions based on mechanical operations performed by the author or by the reader.

References

- Aarseth, Espen (1997): *Cybertext. Perspectives on Ergodic Literature*, Baltimore: The Johns Hopkins University Press.
- Aarseth, Espen (1999): *Aporia and Epiphany in “Doom” and “The Speaking Clock”*. *The Temporality of Ergodic Art* [in:] *Cyberspace Textuality. Computer Technology and Literary Theory* [red.] Marie-Laure Ryan, Bloomington: Indiana University Press.
- Andrews, Jim (2001): *Nio*, www.vispo.com, <http://www.vispo.com/nio/index.htm> [still on page as of May 2009].

- Bromboszcz, Roman: 23.59.59, proarte.net.pl, <http://bromboxy.proarte.net.pl/23.59.59.html> [still on page as of May 2009].
- Bromboszcz, Roman: *krach giełdy olejowej (the collapse of the oil market)*, bromboxy.proarte.net.pl, http://bromboxy.proarte.net.pl/krach_giełdy_olejowej.html [still on page as of May 2009].
- Bromboszcz, Roman: *krzyknik (clamation)*, proarte.net.pl, <http://bromboxy.proarte.net.pl/krzyknik.html> [still on page as of May 2009].
- Bromboszcz, Roman: *Manifest poezji cybernetycznej 1.1 (Cybernetic Poetry Manifesto 1.1)*, www.perfokarta.net, <http://www.perfokarta.net/root/manifest.html> [still on page as of May 2009].
- Bromboszcz, Roman: *rotator (rotator)*, proarte.net.pl, <http://bromboxy.proarte.net.pl/rotator.html> [still on page as of May 2009].
- Bromboszcz, Roman: *spawy (welds)*, proarte.net.pl, <http://bromboxy.proarte.net.pl/spawy.html> [still on page as of May 2009].
- Bromboszcz, Roman: *totem (totem)*, proarte.net.pl, <http://bromboxy.proarte.net.pl/totem.html> [still on page as of May 2009].
- Buczyńska-Garewicz, Hanna (1994): *Semiotyka Peirce'a* [series:] “Biblioteka Myśli Semiotycznej” nr 29, Warszawa: Zakład Semiotyki Logicznej Uniwersytetu Warszawskiego, Znak – Język – Rzeczywistość, Polskie Towarzystwo Semiotyczne.
- Hayles, Katherine (2006): *The Time of Digital Poetry: From Object to Event* [in:] *New Media Poetics. Contexts, Technotexts and Theories* [red.] A. Morris, T. Swiss, Cambridge MA: The MIT Press.
- Kearns, Lionel: fragments of texts [in:] Andrews, Jim (2004): *On Lionel Kearns. A binary meditation on the work of a pioneering Canadian poet contemplating digital poetics from the early sixties to the present*, www.vispo.com, <http://www.vispo.com/kearns/indexenglish.htm> [still on page as of May 2009].

- Markowski, Michał Paweł (2006): *Dekonstrukcja* [in:] Anna Burzyńska, Michał Paweł Markowski: *Teorie literatury XX wieku*. Podręcznik, Kraków: Wydawnictwo Znak, pp. 359–380.
- Melnick, David (1978): “A Short Word on My Work”, $L=A=N=G=U=A=G=E$ No 1, February 1978, p. 13, <http://english.utah.edu/eclipse/projects/LANGUAGEn1/pictures/012.html> [still on page as of May 2008].
- Pisarski, Mariusz: ”Poezja pod prądem. O poezji cybernetycznej”, *perfokarta.net*, <http://www.perfokarta.net/teoria/poezja.pod.pradem..o.poezji.cybernetycznej.html> [still on page as of May 2009].
- Podgórní, Łukasz: *krytyka chleba, gwiazd, kamienia (wieczne demo) (cristicism on bread, stars, stone (eternal demo))* [in:] *Techsty*, Magazyn nr 5 (2008), <http://techsty.art.pl/magazyn/magazyn5/kcggk/kcggk.html> [still on page as of May 2009].
- Podgórní, Łukasz: *Whirlpool from Liverpool* [in:] *Techsty*, Magazyn nr 5 (2008), <http://techsty.art.pl/magazyn/magazyn5/wfl/wfl.html> [still on page as of May 2009].
- Rypson, Piotr: “Wstęp” [in:] *AE* (1996). Kraków: Pusty Obłok [as cited in:] Pisarski, Mariusz: “AE – Robert Szczerbowski” [in:] *Techsty*, Magazyn Nr 1 (2003–2004), <http://www.techsty.art.pl/magazyn/ae/ae1.htm> [still on page as of May 2009].
- Szczerbowski, Robert: *AE* [in:] *Techsty*, Magazyn Nr 1 (2003–2004), <http://www.techsty.art.pl/ae/raster.html> [still on page as of May 2009].
- Wilmański, Tomasz (2004): *Meditation No 4* [in:] *Techsty*, Magazyn nr 5 (2008), <http://techsty.art.pl/magazyn/magazyn5/meditaton4.html> [still on page as of May 2009].