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## Poetic Machinations

Philippe Bootz

The article first recalls the historical evolution of computer poetry which, from Théo Lutz (1959) to *alire* (1989), evolves from experimentation to cultural entity. The emphasis is placed on the French evolution through its main expressions, which are the A.L.A.M.O., the first telematic review *Art-Access*, the *Les Immatériaux* exhibition and the birth of L.A.I.R.E. The second part more deeply analyzes the differences which have emerged between the two main groups of authors, the A.L.A.M.O. and L.A.I.R.E., a difference of viewpoints, of approaches and of the space given by the authors to computer poetry concerning the arts, the machine, and the text. This progressive differentiation of focus questions approaches which were thought to be unchanging, regarding the notions of text, reader and author. This questioning started with the A.L.A.M.O. and progressed with L.A.I.R.E. Its description and the expression of the answers it proposes requires a new critical approach to the notion of text, more anchored in a communication pattern which has been developing since 1993 and whose present state is summed up in the third part. The article ends by demonstrating that the smooth running of *alire* is the full expression of what these new answers imply.

I had originally promised myself to keep quiet, to nicely put my pen back under the hood, and consequently, to withdraw from it the tiger that never comes to a rest. But I won't, after all. Up to the neck in an adventure that I feel to be mine, I have not been able to bring myself to play the part of the sterilized observer. In this paper I will offer an interpretation of the decade in which poetry lost its near technological virginity. I will rely on a brief history of the main facts before comparing the viewpoints and the ideologies developed by the two principal groups of writers that left their marks on the maturing process: the A.L.A.M.O. (a workshop of mathematics and computer-assisted literature) and L.A.I.R.E. (Lecture, Art, Innovation, Recherche, Écriture). It is not my intent to describe here what these teams produced, for the interested reader will find, throughout the article, all the necessary references to gain access to their production.

## A brief history of time<sup>1</sup>

### *From the birth of groups...*

Today there is a general agreement on considering that the first programs of computer texts were developed in 1959, in Stuttgart, by Théo Lutz, and in 1964, in Montreal, by Jean Baudot.<sup>2</sup> These programs were text generators. In France, the situation was to develop along two parallel paths. The organization and energy of this development was unique in Europe. As a matter of fact, it relies on a few elements that are specific to France, some of them being linked to a literary momentum, others to conditions that made the emergence of distribution and the trading of tools easier. Let us briefly review these elements.

The first element is the strong literary tradition in France. One of its essential components, as far as computer poetry is concerned, is the adventure of the "Oulipo." The latter gave birth in 1982 to the A.L.A.M.O., a group of writers and computer scientists<sup>3</sup> "brought together around the project of using, in all possible ways, and without any preliminary bar, the computer in the service of literature."<sup>4</sup> The A.L.A.M.O. headed towards automatic generation of texts and explored several of its aspects, among them poetic forms.<sup>5</sup> Many of its productions were presented at the exhibition *Les Immatériaux* at the

1 Here I raise my hat, even though this is not the subject, to Stephen Hawking.

2 Baudot, Jean. 1964. *La Machine à écrire*. Montréal: Les Editions du Jour

3 The A.L.A.M.O. was started by Simone Balazard, Jean-Pierre Balpe, Marcel Bénabou, Mario Borillo, Michel Bottin, Paul Braffort, Paul Fournel, Pierre Luson and Jacques Roubaud.

4 Preface to issue number 95 of the *Action Poétique* review devoted to the A.L.A.M.O., Avon, 1984.

5 It is essentially Jean-Pierre Balpe who, within the A.L.A.M.O., developed poem generators, for instance the Renga and Haiku programs presented in the exhibition *Les Immatériaux* in 1985 or AMOUR, a love poem generator from 1980. All these generators, and many others, are presented in detail in the following book. Balpe, Jean-Pierre. 1986. *Initiation à la génération de textes en langue maternelle*. Paris: Eyrolles.

Pompidou Center in 1985. The second component, which is more diffuse and yet very real in France, is made up of sound, visual or spatialist poetry, post-dada movements whose authors more or less gravitated around the review *Docks*,<sup>6</sup> which was for a long time edited and produced by Julien Blaine. A whole generation<sup>7</sup> reached the end of the '70s and the beginning of the '80s adhering to some of their elders' ideas, but at the same time missing the central approach, which at that time was only visible in a few exhibitions.<sup>8</sup> This generation was then trying to develop techniques to write texts that took into account time and the presence of the reader (location-poems, network texts). This anticipated the techniques of video texts or of certain categories of computer interactive texts.<sup>9</sup> A large number of these authors, as a matter of fact, have turned to producing their work with the assistance of electronic media (video, computer). It is only recently that these new forms have been drawing more attention with the breakthrough of someone like Patrick Burgaud (a French writer living in the Netherlands) or of Philippe Castellin.

The second element to be taken into account is the impact of the Minitel. This gave birth to an essential though ephemeral structure: the first telematic art review, *Art Access*, published by Orlan and Frédéric Develay. It had two issues which could be accessed in 1985 and 1986, the first issue having been written for the *Les Immatériaux* exhibition. This review thoroughly examined all the art fields while giving writers the possibility to write works specially adapted to the Minitel and accompanied by a critic's text. The review brought together such diverse artists as Ben, Fred Forest, Roy Ascott and Pierre Garnier, to mention but a few. Overall, eighty artists had realized fifteen-hundred screen pages. It is to be noted that *Les Immatériaux* appeared as a climax for A.L.A.M.O. and as a starting point for the dynamic poetry which was to develop in the following years. The second issue of *Art Access*, published in 1986, contained papers by Frédéric Develay (who was also in the first issue), Tibor Papp and myself. Frédéric Develay introduced me to Tibor Papp at the beginning of 1988. It turned out that the texts that we were developing independently were so much in agreement in their aims and techniques that the idea of a team was born. A "federating" event was necessary: it was the gathering heralding the opening of the Maison de la Poésie of the

6 Review *Docks*, Akenaton, Ajaccio.

7 One might quote, among others, the names of Brigitte Dorez, Benoit Carré, Jean-Michel Henniquez, Martial Lengellé, Jean-Marie Dutey, Frédéric Develay and Philippe Bootz.

8 Among others, the introduction of the EUTOPIE group in the *revue parlée* of the Pompidou Center on March 22, 1984 together with a small one week exhibition; the *Texte Autre* exhibition at the Roubaix resource center from December, 1-29, 1984; the *Satellisation, dessins en utopie* exhibitions, which took place at the cultural center in Amiens from May 18 to July 13, 1985 and the *laser c. texte* installation in the J.J. Donguy gallery in Paris, September 7-27, 1985.

9 The relationship between these actions and dynamic poetry on video or electronic media was discussed at the international workshop *Littérature et Informatique* which took place in the Paris VII University in April, 1994. A paper on this theme entitled "Gestions du temps et du lecteur dans les poésies dynamiques," by Philippe Bootz, was published in the proceedings of the workshop (*Littérature et informatique: La littérature générée par ordinateur*, AUPELF-UREF, Paris, 1995).



bilities of video with a first text, *Sécurité* (1980), and notably *Méto-police*, a 13' video text (1985) which contained in a video approach, all the animation grammar which is to be found in computer-animated poetry. It was also in 1985 that Frédéric Devélay realized the videogram "*Lieu provisoire état du texte*" in which the picture track did not include text and which, to date, has not been followed by other attempts.

1985 was a transition period, marked by the end of experimentation and the beginning of maturity. It was then that we produced the first big event in which these approaches expressed themselves. The first symposium took place in Cerisy, organized by Jean-Pierre Balpe and Bernard Magné. All the events that were to take place in the following years (i.e. the birth of L.A.I.R.E., the emergence of electronic reviews, institutional recognition and the evolution of processes) were there in an embryonic stage. Everything was almost in place as early as 1985.

### to that of electronic reviews

What L.A.I.R.E. was first concerned with was the production of a review on disk, the first of its kind, *alire*, whose first issue was presented in January, 1989 at the *Revue parlée* of the Pompidou Center. Since then the review has been published with a periodicity of one or two issues a year. The review was of vital interest for several reasons. The first, and most obvious, was the need for a periodical with which to express and circulate our productions and ideas. It was a necessary tool to provide a prospect of private and intimate reading to the visual production which was to follow, making it independent of duration, independent of the before-after of a public reading. For it is obvious that an animated and visual literature could be tempted by the spectacular and take the direction of a production which would be readable in a public context, during evening performances. The review is an essential element. It enabled the rise of interactivity and the invention of the concept of the *unique-reading poem*, which unfolds during several readings. These types of texts could certainly not have come into being without the existence of the review. What publishing forms exist today for such productions besides these two reviews? I say two because in January 1991, Jean-Pierre Balpe (and not the A.L.A.M.O.) published the first issue of the review on disk *Kaos* with the

15 I think it is useful to give here their addresses. For *alire*: Mots-Voir, 27 allée des coquelicots, 59650 Villeneuve d'Ascq. For *Kaos*: KAOS, 113 rue Anatole France, 92300 Levallois.

16 Organized in Paris VII on April 20, 21 and 22, 1994 by Alain Vuillemin from the University of Artois and Michel Lenoble from the University of Montreal with the collaboration of Item-sup and the Ingénierie didactique laboratory of the University of Paris VII.

help of the firm KAOS.<sup>15</sup> The recent workshops on literature and the computer<sup>16</sup> seem to confirm that no other enterprise of this kind exists in other countries. These reviews were the first to circulate literary works on disks and it is interesting to compare the first issues.

Note that they do not compete with, nor really complement each other, rather they are parallel. In the first issue of *Kaos* there are animated texts by Tibor Papp and by myself. In issues 6 and 7 of *alire* one sees generators by Christophe Petchanatz and by Tibor Papp, respectively. The two reviews' viewpoints differ in several ways and yet it is impossible to say at the present time if those differences are meaningful or not. They are: *Kaos* is free and offered as a new year's gift by a company while *alire* has to be paid for; *Kaos* is composed of one disk (either PC or Mac) inserted into an envelope whereas *alire* is composed of a paper sheet and several disks per issue with, generally, a mixture of PC and Mac disks. *alire* also includes an audio cassette for the sound texts; *Kaos* makes sure its disks are as readable as possible. For instance, the first issue, on PC, only contains CGA texts, the most universal but least rich video norm, whereas *alire* accepts from the start the idea that a reader might have difficulty getting acquainted with some of the review's texts. PC disks are not "translated" into Mac or the reverse. The present connection between the two standards, which should shortly do away with this difficulty, does not make this acceptance any different, an attitude



*alire* was the first periodical on disk dedicated to the publication of digital poetry.

which is certainly new and a priori shocking for a review; and the last point to be noted is that the last issue of *Kaos* (94) does not contain any disk, but is made up of a pack of cards. Other reviews have shown an interest in the development of these computer approaches, notably *Action Poétique* which published an issue devoted to the Oulipo (number 85), another on the A.L.A.M.O. (number 95), and a common issue with *Kaos* (number 129/130).<sup>17</sup> Furthermore, video poetry was able to express itself with the literary and artistic review on video cassettes *p'Art* started in 1987 by Paul Nagy. This review is no longer circulated. We refer the reader interested in further details to works on the topic.

### **From the A.L.A.M.O. to L.A.I.R.E.: altering perceptions**

#### *Shifting words*

Let's consider the interrogation of ideologies which have raised a significant turmoil among readers clinging to ancestral uses. Use of the computer seen in relation to the literary object has evolved from the first experiments of the eighties to the pre-sent productions. Many signs act as evidence. The first is visible when one compares the A.L.A.M.O. (a workshop of mathematics and computer-assisted literature) and L.A.I.R.E. (Lecture, Art, Innovation, Recherche, Écriture) acronyms. One can note the presence of the word "assisted" in the first, and the absence of the word "computer" in the second. One can also note the presence of the word "literature" in the first but with its development by the words reading-art-writing in the second. The way approaches are positioned in the cultural microcosm has obviously evolved.

#### *The text and its medium*

First of all, the computer is considered as outside the literary object — a necessary tool to the act of writing. The text considered is the object generated by the latter. It is readable on paper. In this way, the prelude to issue number 95 of *Action Poétique* speaks of "computer assisted writing programs," of "texts obtained by means of diverse computer programs." Guillaume Baudin spoke at the Cerisy symposium about "text generating machines";<sup>18</sup> generators were only analyzed under their algorithmic aspect, though Balpe quickly announced a series of issues around the notions of text, author and reader. These issues were presented in his article "L'ange ou le diable en boîte" published in *Action Poétique*, number 95.

17 *Action Poétique*, Avon. Number 85 dates back to 1984 and number 129/130 to 1992.

18 Guillaume Baudin, "A pretext for idleness" in Balpe, J.P. and B. Magné, editors. 1991. *L'imaginaire informatique de la littérature*. St. Denis: Presses Universitaires de Vincennes, 152.

This position of the text as "generated" and of literature as "assisted" completely disappears with L.A.I.R.E.. This position is not linked to the "low generating" nature of most of the L.A.I.R.E. team's productions. Indeed the only "classic automatic generator," insofar as it reproduces the procedure set up by Balpe, is Tibor Papp's "disztichon alfa" published in *alire7*,<sup>19</sup> whereas a generator of Raymond Queneau's "hundred thousand billion poems," also programmed by Tibor Papp is present in *alire1*. This text by Queneau was programmed because the display on paper did not make it possible for the uncertain, statistical and "to be read" nature of this text to be wholly expressed. The uncertain nature was not respected because the book often opened at the same page, destroying the equal probability of the combinations. The statistical nature was not verified since the immanence of the other "pages" in the book's bulk gave a "simultaneous presence" to the possible combinations. The result of a throw of the dice is a decision, a produced and not potential event, the only one to exist, making the other elements of the mathematical series of results permanently swing from a throw of a potential nature to pure and simple nonexistence. On screen, nothing exists except the realized combination. There are no other alternatives to this reading, even if other readings of the same generator remain possible. It is exactly there that the swinging over in the conception of the text occurs: apprehending the "generator" in its specificity of generator and not the generated product as *the* text, which would be "one among an infinite number of texts."<sup>20</sup> This apprehending, this understanding, is not reading yet, but a necessary condition to its starting. It requires, in any case, the physical presence of the generator, the only one able to produce the real time inherent in this transformation which, from endless possibilities, produced a unique and exclusive object that we shall no more call the text but the "text-to-be-seen," to remain in accordance with the developments that are to follow. A generator can only be given to be read on a computer and any display of a "generated text," outside its generation context, is as significant an abbreviation and a deviation, as the display of a poster or a photograph instead of a film. And this is true of all the texts which possess a generating nature linked to the intervention of chance, of calculation or of the factual (interactivity) during the production of the text-to-be-seen. So the computer, a writing tool for the author, is turned into a reading tool and there is no longer any point in mentioning "assistance."

19 Papp, Tibor. 1994. "disztichon alfa." *alire7*, Mots-Voir, Villeneuve d' Ascq.

20 All these reasons specify the position of the text and of the reader and assert the book's limits with regard to these positions. One may consider the programming of the *cent mille milliards de poèmes* as L.A.I.R.E.'s manifesto and *alire1*'s other texts, whose aggressive nature can be noticed, as an alternative to automatic generators which transfer the focalization from the text's author to the reader.

The nature of the text's medium was worked upon in *alire* thanks to the presence of the paper leaf, whose role became clearer with the newer issues. If the first issues mixed graphic or written poems (produced on a computer) and theoretical texts, the decision was made after number 5 (December, 1991) on to no longer publish poems which would only use the computer as a particularly efficient production tool for texts with no generated nature. The leaf, then, became the exclusive medium for theoretical texts until number 7 when a new phenomenon appeared: a dialogue, *within the same text*, between a generated (or animated) part and a non-generated part. This dialogue is to be found in Jean-Marie Dutey's work as well as in mine, though with different procedures. Computer poetry may require a computer medium in connection with other media. Conversely, there is no non-generated screen-page on *alire* or *Kaos* disks. It is a very clear "no" to the multimedia approach which presents itself as a big "mixing" of genres. We shall not follow McLuhan on the unifying, reducing and totalitarian path of the "global village." We consider this position a little further on, a position which demonstrates the permanence of the traditional private and intimate nature of literature. There is a very clear-cut separation between genres and in *alire* we would not accept to publish "screen versions" of static, non-generated texts designed to be shown on paper.

More generally and most certainly today, no one would contemplate showing "program-produced texts" without offering the generator itself to be read on an electronic medium. This evolution is obvious. For instance, the joint issue *Kaos 92/ Action Poétique 129/130* includes this aspect: "This issue of *Action Poétique* includes a computer disk, thus we wanted, in line with the rest of our work, to engage in writing at the same time as in reflecting about writing."<sup>21</sup> In the same way, we have the varied symposia, in which nonacademic authors are beginning to appear, either physically or by means of their works shown on the appropriate electronic medium (video or computer). Thus, during the "Nord Poésie et Ordinateur" conference organized by Mots-Voir at the University of Lille in May, 1993 with the collaboration of the research center GERICO-CIRCAV and of the Maison de la Poésie of the Nord-Pas-de-Calais, half of the time was devoted to the projection of works and the other half to papers and theoretical debates. At the last Jussieu workshop, the authors asked for projec-

<sup>21</sup> *Action Poétique 129/130*, Avon, 1992, 4.

tions and displays and Paris VII's technical department was able to meet their demand. Proceedings themselves do not escape the rule: the proceedings of the Lille conference, A:\LITTÉRATURE.J include two disks (one for PC, the other for Mac) which show examples of the different "styles" that can be seen today in computer poetry in France. There is also an electronic edition of the proceedings of the Jussieu workshop.

*No longer a written text to be read,  
but a written text -- a text to be read*

Computer authors place themselves within a literary continuum rather than in opposition to the poetic forms, whether traditional or not. On the contrary, they push poetic forms to the end of their logic, in a very modernist perspective. This leads to reconsidering their productions according to criteria which are not necessarily new, but which are sharpened and outside past fashions. Indeed the Lille conference brought to light an approach to the computer by visual poets, essentially Americans,<sup>22</sup> as well as points of convergence between approaches derived from post-dada trends and approaches felt as more traditional. One easily understands then the public's opposition to this approach, which no longer relies on criteria instituted by the acceptance or the refusal of dadaism and the epic which followed. This approach relies on a feeling that the computer is coming at the right time, and in a more definite way than other forms, to propose a new approach to the triad author-text-reader and that this approach is perfidiously part of a continuous process, opening new doors. Thus, Jean-Pierre Balpe announces in the presentation of *L'Imaginaire Informatique de la Littérature* (1991, 27): "Since, however, they (the computer authors) do not question at all the notion of literature, as they on the contrary claim they belong to it and feed on it, the fact that they bring us to reconsider its nature and consequently its evolution seems unquestionable now." I, for my part in *alire2* (1989) noted the continuity between computer and visual poetry approaches: "thus may be dawning this poetry, free from the paper language that twentieth century poets seek." And yet the approaches are different in the two texts. Jean-Pierre Balpe continues: "Writing is no longer producing a given text but establishing abstract text models. The originality no longer lies in the product but in the production procedures." This very clearly sets out a hierarchy between a "program" and its product, only awarding the status of text to the latter. But more than the organization of

22 See the articles written by Orlando Carreño or Jacques Donguy in A:\LITTÉRATURE.J.

texts into a hierarchy, it is the importance of the structures (the production procedures) that is put forward. Whether the latter is removed from the product apprehended by the reader to the structure designed by the author, seems to me of minor significance, even though this has been the first stumbling block with readers, and is a point often debated. The sequel of the *alire2* text states that "being obliged to build the tools and the rules at the same time, to take the text as a pretext and as an object to be programmed, writing ... organizes itself as an object and, for the first time perhaps, as outside itself. It is the first time indeed that the results of a text, its 'to be read' aspect is not written in the same language as its "written materiality." This also is likely to disrupt the relationship between literature and its language...I am not trying to inform nor even to make it readable. The text is an organism that one makes one's own and that one destroys to read it. Let us note that this textual organism is not the metastructure set up by the author but only a product of the latter." Here a separation of the text into two sides is taken up. The "production procedures" and the "to-be-read" aspect (an entity that makes up the text in almost all paper literature) are the complementary aspects of the same object, but which are not perceived in the same space, with the same relationship to the text. One belongs to the author's private sphere — the other to the reader's. In this vision, it is the relationship between the topic and the text which is given more value, with reading prevailing over writing. The latter is felt as cannibal, destroying the text that it is reading but without any effect on the object made up by the author. The independence between text/author and reader/text relationships naturally leads to the text's perceptual split. It is to be noted that this cannibal aspect given to reading will have strong repercussions on the way the texts themselves function, until it makes the notion of "unique-reading poem,"<sup>23</sup> whose "to-be-read" aspect evolves in an irreversible way with the different readings.

**From the text designed as an object, subject to a functioning process, to the text designed as a medium to initiate reading**

*A structural approach; a functional approach to the text*  
 The A.L.A.M.O. authors have been trained in the Oulipo ideology according to which the text is first and foremost a linguist

23 An example and a comprehensive presentation is to be found in A:\LITTÉRATURE.J. In a few words, a unique-reading poem can be presented as a hypertext generating an animated text in an irreversible way. Indeed interactivity brings about a navigation of an inter-textual nature in the generator without the reader's knowing. The latter does not see this navigation nature at all nor even, for that matter, the generating nature of the structure since he can never come back to the same sequence. These aspects can only appear during exchanges between readers. The irreversibility is due to the fact that any act initiated by the reader is memorized for good and has an influence on the reading in process and those to come. This type of text can only function with a substantial number of interactive readings (ten or so). All things considered, the text-to-be-seen generated beyond that number of readings is no longer interactive but has a history for the one reader who generated it. It is to be noted that the concepts of that type have been proposed in Philippe Bootz's article, "The unique-reading poem," *les Cahiers du CIRCAV* nr 3, GERICO-CIRCAV, Villeneuve d'Ascq, 1993.

tic structure. Jean Ricardou says so very clearly: "From now on, I, for my part, wish to define the text as a written work carrying further structures,"<sup>24</sup> a sentence which describes the different types of possible structures. These authors, then, essentially manufacture structures and are not saving technical explanations on the way they function, whether on the products of generators or on the generators themselves, whose structure is not to be mistaken with that of generated texts-to-be-seen. These informational mathematical structures, the "describers,"<sup>25</sup> are essential at the generator's level, whereas this notion is completely absent from generated "texts." Priority, which has, willy-nilly, to be qualified as ideological, was being nevertheless given to the generated text, the generator being only presented as a "program," that is to say a means of production. This approach to the text is part of a literary tradition which hastened to evade dadaism and the various poetic upheavals of this century.

L.A.I.R.E. substitutes two actions, reading and writing, for a textual object, favoring the notion of text according to two relationships: the author/text and the reader/text relationships. The text is no longer an independent object as much as the space in which two relationships are applied. The difference is significant. Its connection with the author, on the one hand, and with the reader, on the other, should therefore be taken into account in any discourse on the text and it should be very accurately specified *in which of the two relationships the characteristics stated about the text are applied*. For it turns out that, as we have already noticed, the notion of text does not apply to the same object in the two relationships, and this happens independently from the presence or absence of the computer. This approach means substituting a relational or functional analysis for a structural analysis of the text. The important issue actually is no longer to "give a purer meaning to the words of the tribe" but to "postpone the reading process during writing." That is to say that the writer's role (and not the text's) is to *make read* in a particular way. This is what he or she is aiming at. Action has priority over the object and, within the former, reading has priority over writing. The text becomes the operational space for a reading function, the necessary medium for its realization. Before looking at the way this functions, we have to notice two things.

24 Jean Ricardou, a discussion following Bernard Magné's article, "L'Imagination informatique de la littérature," 204.

25 See, for instance, the most comprehensive work to this day, which describes in detail the way several generators from the pioneering days function: Balpe, Jean-Pierre. 1986. *Initiation à la génération de textes en langue naturelle*. Balpe. 1990. *Hyperdocuments, Hypertextes, Hypermedias*. Paris: Eyrolles.

TAG-SURFUSION		
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-	26.55 S 27.48 E WOLZIGER SEE 52.16 N 13.50 E	A
-	LAVENDER DISASTER PCP ANGEL D	R
N	26.55 S 27.48 E WOLZIGER SEE 52.16 N 13.50 E	R
G	LAVENDER DISASTER PCP ANGEL	A
E	26.55 S 27.48 E WOLZIGER SEE 52.16 N 13.50 E	N
M	LAVENDER DISASTER PCP ANGEL	G
E	26.55 S 27.48 E WOLZIGER SEE 52.16 N 13.50 E	E
N	LAVENDER DISASTER PCP ANGE	M
T	26.55 S 27.48 E WOLZIGER SEE 52.16 N 13.50 E	E
-	LAVENDER DISASTER PCP ANG	M
2	26.55 S 27.48 E WOLZIGER SEE 52.16 N 13.50 E	E
		N
		T
		2
		4

TAG-SURFUSION		
K	26.55 S 27.48 E WOLZIGER SEE 52.16 N 13.50 E LAVENDER D...	K
I	6.55 S 27.48 E WOLZIGER SEE 52.16 N 13.50 E LAVENDER DI...	I
N	5.5 S 27.48 E WOLZIGER SEE 52.16 N 13.50 E LAVENDER DIS...	N
G	5.5 S 27.48 E WOLZIGER SEE 52.16 N 13.50 E LAVENDER DIS...	G
S	5 S 27.48 E WOLZIGER SEE 52.16 N 13.50 E LAVENDER DISA...	S
-	5.27.48 E WOLZIGER SEE 52.16 N 13.50 E LAVENDER DISAS...	S
S		
I	QUARK STRANGE GEMUTLICHKEIT STANFORD LINEAR	S
G	ACCELERATOR CENTER CYBERPUNKS LAURA M	I
N	QUARK STRANGE GEMUTLICHKEIT STANFORD LINEAR	G
-	ACCELERATOR CENTER CYBERPUNKS LAURA	N
T	QUARK STRANGE GEMUTLICHKEIT STANFORD LINEAR	A
U	ACCELERATOR CENTER CYBERPUNKS LAURA	T
R	QUARK STRANGE GEMUTLICHKEIT STANFORD LINEAR	U
E	ACCELERATOR CENTER CYBERPUNKS LAUR	R
-	QUARK STRANGE GEMUTLICHKEIT STANFORD LINEAR	E
-	ACCELERATOR CENTER CYBERPUNKS LAU	
R	QUARK STRANGE GEMUTLICHKEIT STANFORD LINEAR	
D	ACCELERATOR CENTER CYBERPUNKS LA	
-	QUARK STRANGE GEMUTLICHKEIT STANFORD LINEAR	R
R	ACCELERATOR CENTER CYBERPUNKS L	A
	QUARK STRANGE GEMUTLICHKEIT STANFORD LINEAR	D
		A
		R
		A
		S

Screen shots from *Tag-Surfusion*, a digital animated poem by Jacques Donguy. The poem first appeared in *alireB* in 1994.

K  
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The first is that this approach places the text in relation to non-literary fields, a positioning that we shall analyze in detail later. The second is that the two structural and functional aspects are complementary and do not exclude one another, as any realization of a reading function can only be carried out through particular structures. Each structure generates its reading mode. The writing of most A.L.A.M.O. generators supposes for instance that it is the aesthete or the scholar who will read them. The reader is asked to participate in the playful experience of discovering the structures that they propose. These structures are not necessarily given, since this is what they are about; their presence is clearly announced.<sup>26</sup> In *alire*, on the other hand, the presence of the structure is only given when the reader's action modifies the generator's possibilities in an irreversible way.<sup>27</sup> The reader is informed of the existence of a structure which reacts to his action. Apart from this extreme case, the reader does not even always realize that chance or calculations intervene in the poems published in *alire*. He therefore does not feel like reading them again with a "look for the differences" spirit. Consequently it seems reasonable to deliver hidden structures, texts of which only a part is offered for reading without the reader being able in any way to realize this is so. If one considers structures which can in no way be read so as to exhaust them, one realizes that. The notion of text apprehended in the relationship author/text does not correspond to the notion apprehended in the relationship reader/text.

#### *A functional model for the text*

A model for the functional approach to the text is beginning to take shape.<sup>28</sup> This model goes beyond computer poetry and has been applied, among others, to location-poems, to certain forms of visual poetry, to certain readings and performances. It specifies that the author produces a *texte-écrit* (written-text), an abstract structure made up of a logic applied to the rules governing the functioning of a conceptual material. This logic may be sequential or factual. This *texte-écrit* is a project not to be mistaken for the material form it takes up in the author's work (storyboard, program, etc.). The material aspect *describes* with technical words, appropriate for a reading medium, the logical structure, the shape taken by the concepts as well as actions which can be performed on them. At this level, language does not exist as such. Grammar, notably, is an element of the material and not of the logic of functioning.

26 A typical passage from this announcement is as follows: "Reading the text once does not guarantee that you have used up the possibilities. You have to read and read again..." in *Action Poétique*, 129/130, 6.

27 This information was given directly on the disk as an introduction to the extract from the unique-reading poem "Passage" by Philippe Bootz in A:LITTÉRATURE.J.

28 Through the three articles already quoted from the Cahiers du CIRCAV n° 3, from A:LITTÉRATURE.J and the acts of the Jussieu workshop.

Whatever material form its description may take up, this *texte-écrit* is a generator. It is going to produce *textes-à-voir* (texts-to-be-seen) on a particular medium which makes up the readable part of the text. These *textes-à-voir* may be classified concerning computer poetry, in a few genres: automatic generators, animated poems, sound poems, unique-reading poems. The characteristics of these various types of texts have been widely described in the already mentioned works and we shall not recall them here.

The *texte-à-voir* is essentially located in time, if only that of reading. It is found in a reading context made up of all the physical components present during the reading and not managed by the *texte-écrit*. It is, therefore, not the latter which will be read, but the entity resulting from its association with the reading context. Eventually it is this entity, the only "objective" one in the relationship of the reader to the text that the reader apprehends through interpretative filters and reading grids to produce a *texte-lu* (read-text) located in his or her memory.

The author will translate his or her functional ideas by a particular bias of the *texte-écrit's* logic. The specificity of the "reading process," of the method according to which the *texte-lu* is constituted by the reader, is an essential component of his or her style. One cannot really speak of the reader being manipulated by the author since it is the *realization procedures* of the *texte-lu* that he or she is concerned with, and not its contents. The reader is not required to build a "fair" *texte-lu* or, in other words, to discover "what the author said" or to apprehend the "formal subtleties" of a *texte-à-voir*. The notion of misunderstanding, notably, does not belong to the *texte-écrit* nor, consequently, to the *texte-lu* (unless it is reintroduced by the very reader).

#### *Poetry in the information society*

The functional vision relies on an ideological response to society's functioning, or at least to a part of it. The functional approach seems to me typical of the generation that is thirty to forty years old today, and is visible in all genres (whether on computer or not) and all groups. It is not restricted to computer writing. Thus Benoit Carré in 1986 noted, concerning the location-poem he had realized for the *Images et Mots* exhibition in Villeneuve d'Ascq: "Because the text derives its mean-

ing from the situation (which its presence gives birth to), it is not possible to propose through it a possible message, a vision of the world, however fragmentary: the reading act reveals nothing but particular relationships (material and semantic) between a text, an environment and a reader."<sup>29</sup> As early as 1984, still about the reading of location-poems, I wrote "that poetry then does not transmit a discourse on lived experience, but a lived experience on lived experience."<sup>30</sup> After all, reading is a reader's performance, to take up the vocabulary used in the seventies. Of course, no approach is totally structural, nor totally functional. No approach excludes the other. Jean-Pierre Balpe's developments concerning the alterations of the concept of author are closer to a functional than to a structural approach.

An example of the difference in viewpoints between the structural and functional approaches is given within L.A.I.R.E. itself by the debate around the impact of the computer's reading speed, as presented in *alire's* leaf (1990). In those notes I developed the idea that the machine plays an active part during the reading, close to the "performance" that can be found in music, and that the author must know and accept this fact which is part of the concept of reading developed in the theoretical model:

This translation of the work by the machine is a true treatment of the semantic signal of the text-to-be-seen prior to any reading. It cannot be avoided. This is not a deterioration of the signal or an added background signal as happens with audio... In a way, the text-to-be-seen, the real poem, which will be read, is not stored even in the floppy disk plus machine set.

This dematerialization, a sign of individualism, but also of a free reading, may be what fascinates me the most in computer literature as I see it.

29 Benoit Carré, the catalogue of the *Lecture* installation within the *Images et Mots* exhibition, Villeneuve d' Ascq, 1986.

30 "Un modèle du monde vécu," Philippe Bootz in the catalogue of the *Texte Autre* exhibition, Mots-Voir, Villeneuve d' Ascq, 1984.

To which Tibor Papp answers in the article "Littérature sur ordinateur - Enregistrement restitution" in the same issue: no, the situation is the same as that of sound poetry when tape recorders appeared, the situation will become stable and the problem will disappear:

The essential difference between electronic works and those of the previous period lies in the way they are set on a final medium; this setting is not simply substituting writings; it uses a large number of relevant literary effects that cannot be separated from the electronic world; as in sound technology where "cutting up" and "editing" are an integral part of the literary works thus conceived.

In this type of setting, the question is most of all to extend the senses or rather to go beyond them... It goes without saying that when one speaks of electronic playback on a cathode screen or with an amplifier, one supposes optimal retrieval, as worked upon and wanted by the author... Considering that the normalization of computers remains a problem, there may be incompatibility between the recorded work and the retrieved material. This type of incompatibility is very familiar; it already existed for sound works in the pioneering times of tape recorders.

One feels on the one hand, the functional approach, which puts the stress on reading "at any cost," and the structural approach on the other, which puts the stress on an object, the text, as an extension of the author. In this approach, the text is to be preserved considering the existence of a literary nature, even if this is specific to an electronic mode. It is to be noted that the functional approach does not deny the existence of a literary nature, but that it makes it subordinate to the reading. What should be aimed at is the existence of a specific reading procedure. One may also note that the structural approach establishes a specificity of genres by the specificity of the medium (McLuhan's "the medium is the message"), whereas the functional approach establishes a specificity of genres by the specificity of the reading concepts. If the functional vision had to be summed up in a maxim, it might be "the poem only exists in the memory of those who read it," thus favoring the reader/text relationship. For instance, the same animated text, read on computer or video screen, will not have the same results because of very different reading contexts. It will then be possible to speak of two different texts with regards to an object which, however, offers two identical texts-to-be-seen. In the same way, one will be able to talk about two different texts concerning the same program running on two very differ-

ent computers implying very different reading contexts. The striking example is Jean-Marie Dutey's *mange texte*, programmed in 1986. The version published in 1989 in *alire 1* gives very different reading results depending on the computer's speed.<sup>31</sup> The text is subordinate to the medium in the structural approach, and to the reading context in the functional approach. Of course, taking into account the reading context generated by the machine's specificity must not be an alibi to accept anything — the author generally wants his or her text to remain readable in a certain field of possible "contexts." As soon as these contexts prevent any reading, a remedy has to be found. This is what is now happening with the rise in speed of computers, a rise which was unforeseeable just a few years ago, and which requires some alteration in the programs of animated texts so as to master the speed of the animations and guarantee their readability. This will be done when a new edition of *alire* is published by Mots-Voir.

One may consider the functional approach as a response to an individualistic information society. It is a subject-to-subject response, with a private, even intimate nature, noninformative in the sense that the written-text produces limited information compared to the actions performed by the reader (compared with, for example, educational software or other common products requiring the same amount of interactivity).

This is mostly true of automatically generated texts (seen as generators and not as "text manufacturing" machines, as was explained before) or of interactive unique-reading poems, but "classic" animated texts which include a symbolic or ironic de-clension of this. This personalization of reading relationships may lead to two conclusions. The text-to-be-seen being unique, it may be perceived as being meant for nobody or, on the contrary, for everybody. This ambiguity is raised for that matter in the case of unique-reading texts where the generator, for each reading, answers the reader according to an interpretation grid for the reader's actions which is the author's. Then, after "art for all," we are entering the era of "art for everyone," thus confirming a fact. What is conveyed to the reader, outside any semanticism, is a consideration of his or her reading as a founding element of the text; it means giving its significance back to reading, apprehending the reader in his or her human dimension of actor and not consumer, acknowledging his or her faculty for building meaning. It becomes a

31 For example, an 8086 chip with 4 MHz will present a different experience than an 80386 with 25 MHz.

source of freedom, rather than a reproduction of Pavlov's formal games. And this takes place during the creation of the text by the author. Then it means that creators are meeting, a meeting postponed in time in the same way as with telephone and answering machines. It entails that any reading is "work" before being enjoyment. It requires effort and will, a will which is required as soon as the medium is approached, for the "handling" of the floppy disk to become a "hands-on reading experience" of the texts it contains. This effort may even become a matter of perseverance for the reader who does not own the standard machine on which the text is written.

Similar approaches exist in electronic art, as in the aesthetics of communication of Fred Forest and Mario Costa. Compared to electronic art designed to function in public performances, the new kind of poetry discussed here is original in its own right, as it proposes a "private" experience which asserts itself in duration.

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