

About some programmed forms in e-poetry

Philippe Bootz, Laboratoire Paragraphe, Université Paris8

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Overview

I intend to illustrate some programmed forms among the most representative one of the digital poetry of today. They use two important features of the digital medium: dual performative signs and a semiotic gap between the author and the reader.

The author works dual performative signs in a digital poem. One component is set in the program and is inaccessible by the reader. Another is placed in the domain of the reader. The component that is set inside the domain of the author is made by logical and mathematical rules. It is a procedural component. Multimedia processes and corporal (or ergodic) processes the reader performs herself make the other. It is a processual component. In some forms, the ergodic processes may become signs of the work, so we have to take them into account in the general case. Thus, the dual sign the programmed forms work with is procedural in the space of the author and processual in the space of the reader.

One can consider that programming is the material with which the author works these signs. But running of the program is so important than programming because it is the physical process that shows the processual face of the sign. The couple (programming/running) and not only programming finally generates the dual sign. One can conclude that one cannot understand a programmed form as a pure algorithmic work or as a concrete only readable and perceptible event, even if it is the concern of each category. One would qualify the work as algorithmic if the multimedia event that appears while running would limit to the actualisation of the logic of the algorithm, if the program would constitute a complete description of this event. But it is not true; it contains also many aesthetical characters that are not described by the algorithms, for example the notion of pixel or the rate between the spatial dimensions of the work and the size of the screen. Conversely, one could qualify the work as concrete if the program would constitute a stable model of it. But is not true either. Analysing the diachronic behaviour of the programs of the works shows that the multimedia event it products diverges and depends on the technical context of running (platform, OS, speed of the CPU, player, browser...). Thus, the two faces of the dual sign have together a relation of necessity but not of subordination. Analysing the behaviour of works reveals that, sometimes, some features of a face have no correspondent in the other; the two faces have a relative independence. One cannot reduce the dual sign to one of its components, even if it would be the component that is shown to the reader.

The relative independence between the two faces of the dual sign creates a semiotic gap between the author and the reader because they are not confronted with the same utterance. The component that is looked at by the reader is inaccessible by the author; it remains virtual for her. She can imagine it by looking at what appends on his own screen while creating the work, but, contrary to another device such as video, a computer never exactly reproduces a programmed work, especially as the work is interactive. Conversely, The program remains virtual for the reader; it is only indicated in the signs that occur in her space on screen and in sound. This disjunction between the domain of the reader and this one of the author creates a semiotic gap that the work, sometimes, does not fill, *id est* the work does not always interface in the reader's space the signs that are

developed in the author's space. Reading is sometimes not sufficient for the reader reaches all the aesthetical levels of the work and the more aggressive forms in programmed poetry play with this insufficiency.

The limited knowledge of the domain of the other that each actor, the reader and the author, has, constructs a particular communicational context of a programmed work. The author creates a work she knows every logical relation, every formal development; she has a global knowledge of it. But generally she is unable to manage the details of what will happen at each time in the reader's space while running. This abandonment is yet made after rigour and concern of the details in programming. As for the reader, she accesses the work in places, she is trapped by the technico-temporal context that constrains the running of the program. The relationship between the work and the technical context creates the semiotic gap between the author and the reader. Nobody has ascendancy over the other. The reader is not a king that would receive a total attention from the author and the author is not a *deus in machina* of her piece.

2 Some programmed forms

Let us look now at some programmed forms that more or less articulate the dual sign and the semiotic gap.

2. 1 The work is both physical processes and computing procedures.

In some works, the program only describes the multimedia event that appears at screen. Thus the totality of the aesthetical proposition is limited to the space of reading. The reader is faced with a space she must explore by navigation as she can explore a sculpture by navigating into the space it is living in. As for the sculpture, every changing of the context modifies its perception and the aesthetical value of the forms it contains. This point is important in digital literature because the quickly changing technico-temporal context constitutes the space the work is living in. So, regard, a reading, can only be synchronic. It is unable to lock up the work in a unique icon of itself that would be the picture it primed in mind and that can be infinitely called back by another viewing; contrary to a film, one cannot view a programmed work, it changes when one modify a little its context of running. The work remains fundamentally virtual, no actualisation can define it.

In this case, one cannot consider the digital work as a picture. When considering the work is a picture gives only a synchronic description from the point of view of the reader but cannot explain the diachronic aesthetical divergence nor what happen from the point of view of the author. One can only describe a programmed work in terms of physical processes and computing procedures. Programmed forms play with these two faces. We can order these forms between non-programmed to hardly programmed, not in function of the computing interest of the program but in function of the use of the specific features of the medium. The forms that are closed to non-programmed forms are only based on a semiotic use of time in observable processes. They are the oldest. A second category is based on the dual sign and the performative character of the medium. This form also uses time. A third category is based on the semiotic gap. These forms also use both time and dual signs.

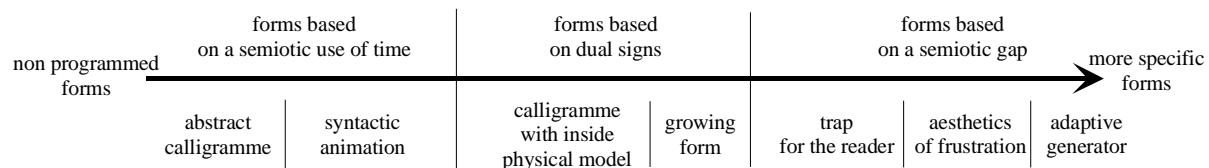


Figure 1 typology of programmed forms

2. 2 Forms based on a syntactic use of time

2. 2. 1 Time can create intermedia forms.

Some forms are only concerned with the processes that appear on screen considering they are signs that use time as a part of their substance. One can develop Intermedia products in the sense of Philadelpho Menezes by use of this intrinsic temporality of the sign. *Id est* these pieces present a circulation between different semiotic systems, for instance between text and picture or between a written text and a sound text. The forms that are based on time do not directly use the particularities of the medium (dual sign and semiotic gap). Thus, one can record them on a videotape. They constitute a limit between programmed and non-programmed forms. They are rather poetry assisted by computer.

2. 2. 2 The abstract calligramme.

In the abstract calligramme, using time is similar to play a verb of action. The graphical level of the work is so similar to an implicit linguistic level and one can read the word as a classical text. Here, the picture serves the text unlike proposals of the design. The resulting object is an abstract calligramme in what picture serves a textual utterance.



Figure 2 : Alex Gopher, *the child*



Figure 3 Servos Komninos, Sun,

2. 2. 3 Syntactic animation

Time can also become a syntactic axe. It adds a polysemy to the grammar of the written text on screen. This form is the syntactic animation. It was developed in France at the middle of the eighties in works published in the review *alire*. The reader must use mechanisms that come from the oral character in order to read a syntactic animation. In this case, the sentence does no more exist, nor in reality the word, even if, at each time, the “picture of the text”¹ one can look at on screen seems to be a word. In fact, this word changes on time to time by homonymy. The reader can read a written text at each time, but this text is different at each time, it depends on the use of the

¹ Expression created by Emmanuel Souchier

temporal syntactic axe or of the two classical axes for writing. Thus there exist no more linguistic level under the text itself even if the picture of the text tends to let us think the contrary. The text has no more sense, its meaning depends on the bifurcations between the two modalities of reader's reading: one that is coming from oral character and the other from classical writing. Let us note that the reader generally does not make consciously this choice. Syntactic animation creates a non algorithmic combinatory that is developed by the reader only and not at all by the author. It is also possible to create syntactic turns of phrase that are impossible in the natural language. For example, a proposal can become the subject of the verb it contains².



Figure 4 Philippe Bootz, *À bries abattues*³

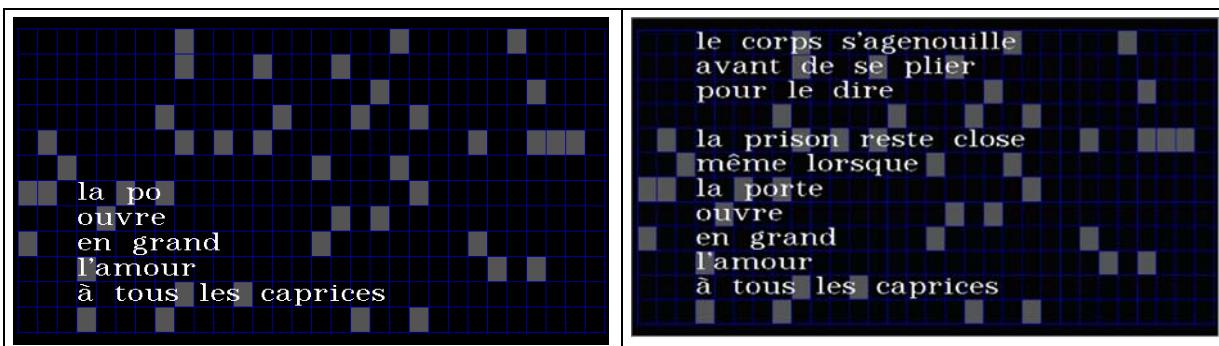


Figure 5 : Philippe Bootz, proposition⁴

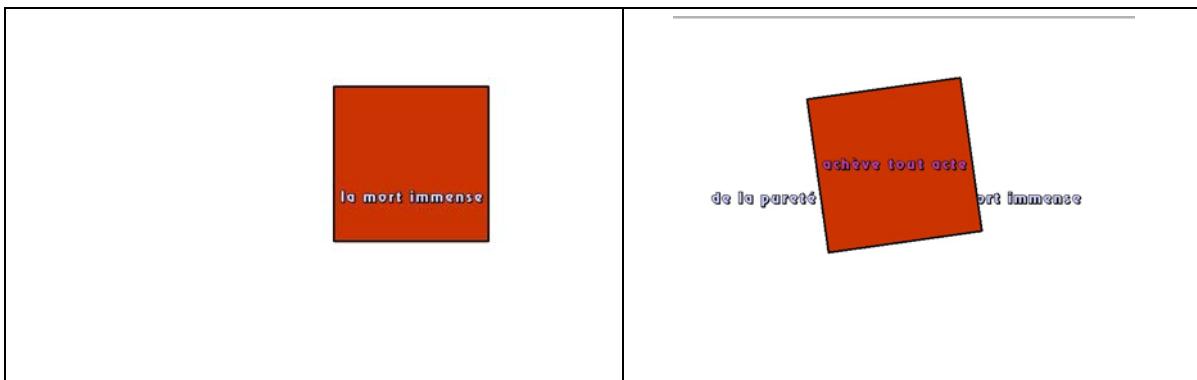


Figure 6 : Philippe Bootz, *retournement*⁵

As I said, the works would be recorded on videotape. In fact, we always defend in *alire* to record works on videotape. We considered that such a record is not the work but only a documentary on the work. We admit that the range of various actualisations of the program is a part of the programmed form, the work does not reduce to a combinatory between modalities of reading. The aesthetical result one can see today is very different of which that was performed in the eighties.

² Note that screen-captures cannot translate the temporal behavior of reading because at each time, so in each picture, you have a complete poem and you use spatial global reading whereas in temporal reading you focus only on some detail, the unique one that is changing.

³ *Le Salon de Lecture Électronique*, MOTS-VOIR, Villeneuve d'Ascq, 1995

⁴ *Le Salon de Lecture Électronique*, MOTS-VOIR, Villeneuve d'Ascq, 1995

⁵ *alire11*, MOTS-VOIR, 2000

2. 3 Forms based on dual signs

2. 3. 1 The calligramme with inside physical model.

Sometimes the work looks like a printable text, sometimes as the picture of a real word that has its own physical rules. It is why I call this form a “calligramme with inside physical model”. The rules that govern the evolution of this world and are implemented in the program constitute the physical model inside the calligramme.

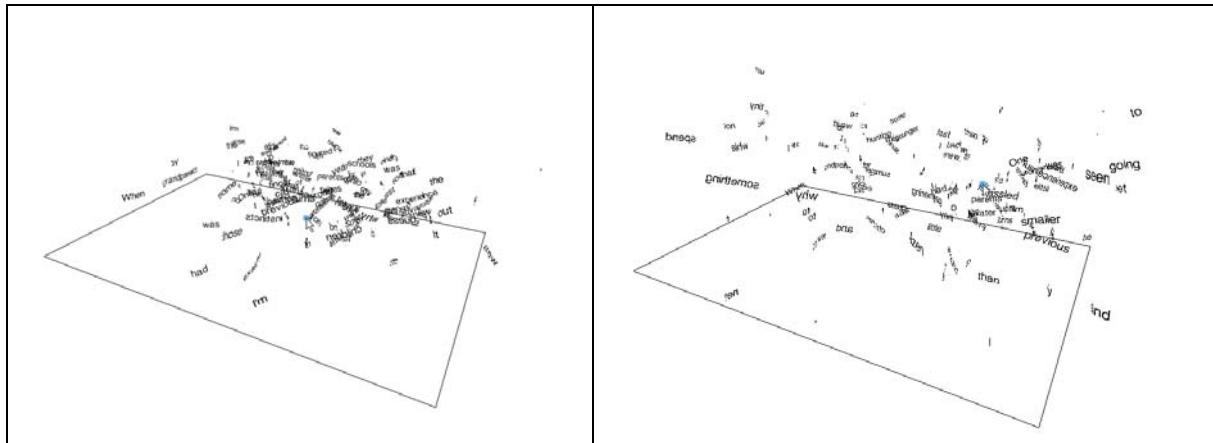


Figure 7 : Andreas Müller, *for all seasons*⁶

2. 3. 2 The growing form.

In the syntactic animation, the form overflows from the screen into the space of the reader. One can add new features by adding interactivity, *id est* the management by the program of the response to certain actions of the reader. In this case, the processes that one must take into account in order to define the programmed form no longer are limited to the multimedia processes one can look at on screen, one must add the ergodic processes the reader makes. As these processes have their own temporality, the physical running becomes a truly component of the programmed form. In the form that is closed to the calligramme with inside physical model, the program uses actions of the reader to extend the possibilities of the form that is growing with interactivity. It is why one may call this form a “growing form”. It can grow (or change) in quality, as in the unique reading poem that can be described as an hypertext in which the reader can only construct one path that is associated with several generators that generate only one solution. The path and the solution depend on the previous actions of the reader.

⁶ <http://hahakid.net/forallseasons/forallseasons.html>

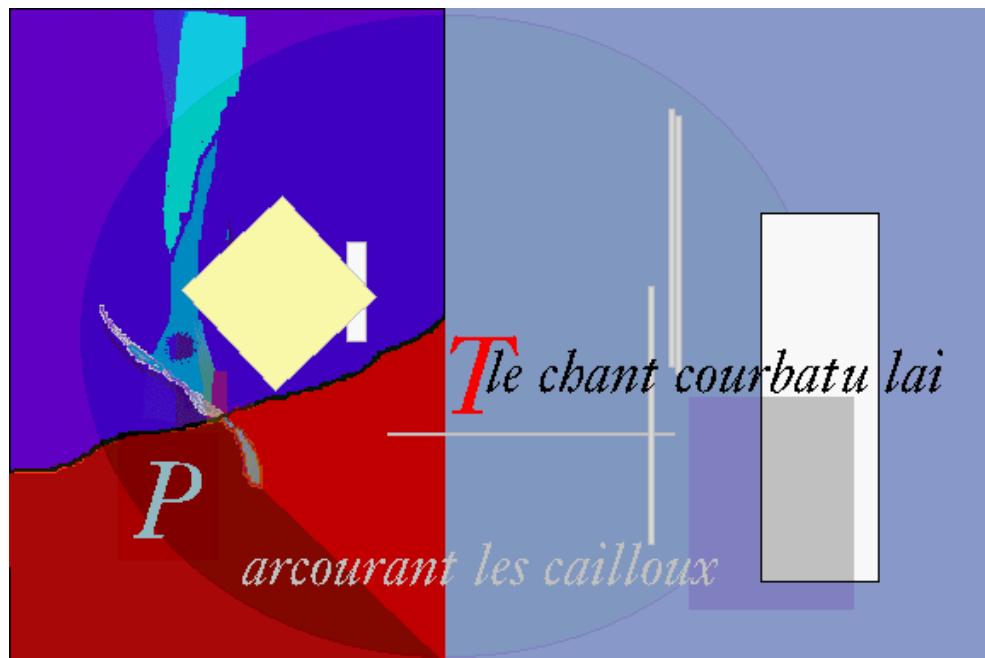


Figure 8 : Philippe Bootz, *passsage*⁷

The form can also change in quantity, the actions of the reader adding diversity and variation in the form. It is the case in *Poème Aphorisme* by Alexandre Gherban. The reader navigates between several animations and the detail of the forms she manipulates depends on the previous actions she made. Navigation creates a virtual context for further animations.

The important feature of the interactivity in the growing form is not navigation but the command of observable processes.

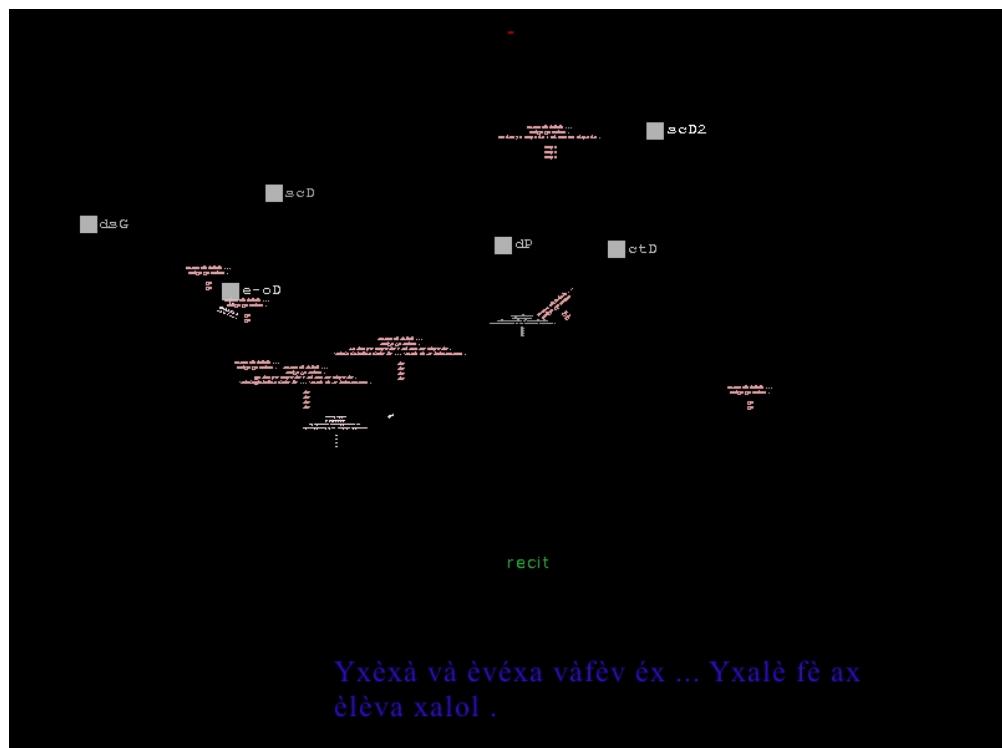


Figure 9 : Alexandre Gherban, *poème-aphorismes*⁸

⁷ *alire10/DOCKS*, MOTS-VOIR & AKENATON, 1997.

2. 4 Forms based on the semiotic gap

2. 4. 1 These forms are constructed on a “hole” in the observable processes.

In the forms trap for the reader and aesthetics of frustration, no sign the reader can perceive on screen gives the significant of her action. The form plays with the semiotic gap.

2. 4. 2 The trap for the reader.

Interactivity can sometimes become constrain. It forbid to navigate into the work or the form, the command of observable processes is used to “shut reading off”, to show that the power of reading is limited. The reader is thus a prisoner of the work. It is why this form is called “an interactive trap for the reader”. It extends the concept of “trap for the reader” that has been developed in *alire*. As in syntactic animations, the interactive trap for the reader uses the reflex side that goes with an action. The most important feature of interactivity this form uses is the reflexivity: interactivity concerns here the relationship between the reader and herself much more than the relation between the reader and content. Here the ergodic activity does not facilitate the cognitive or noematic activity as in navigation, it goes again the noematic activity. The activity of reading forbids properly noematic reading. In *alire* the trap for the reader was defined by the maxim: “reading forbids reading”.

In a trap for the reader the work is no more limited in the space of the machine (program and screen), it overflows on the situation of reading. The reader becomes a device of the medium of the work; her activity of reading becomes a component of the work. One can say that the work contains a performance of the reader⁹.



Figure 10 : Philippe Bootz, *le rabot-poète*¹⁰

2. 4. 3 The aesthetics of frustration

The work can use the activity of reading in a more semiotic sense. This performance can become a sign of the work with a precise significant. In the aesthetics of frustration, the reader plays a role inside the work without knowing it. This role is a metaphor of a real situation of life. In this metaphor, actions and reactions of the reader are iconic of physical processes that can arrive in the real situation of life. A failure of the reading can no more occur because a failure of reading is a particular modality of reading and thus this failure has a sense in the metaphor. So one can create

⁸ <http://gherban.free.fr>

⁹ note that syntactic animations are soon a first sort of trap for the reader, but they act on noematic processes and not ergonomic processes. So, they do not overflow on the situation of reading.

¹⁰ DOC(K)S on line : http://www.sitec.fr/users/akenatondocks/DOCKS-datas_f/collect_f/auteurs_f/B_f/BOOTZ_F/Animations_F/rabot.htm

works that are difficult or impossible to read but for which this impossibility is not a failure of reading. We can say that “reading forbids no reading”

For instance, in the piece *Florence Rey* by Patrick Burgaud, the reader experiments the situation of lost, doubt, anger, despair, despondency the prisoner lives. In my piece *Stances à Hélène*, that is the first piece of this aesthetics, the reader’s activity is the sign of her own reaction in front of death. She may make nothing or choreography or something else: the behaviour of the pictures she generates is completely autonomous. The interaction has nothing to do with the textual level of the work. In traps for the reader else in the aesthetics of frustration, the interactivity is navigation or a command of observable processes that seem to be free, that are logically independent of the textual level.



Figure 11 : Patrick Henri Burgaud, *Florence Rey*¹¹



Figure 12 : Philippe Bootz, *Stances à Hélène*¹²

2. 4. 4 The adaptive generator.

Conversely, the form can be turned toward the program and not the reader’s space. The conflicting situation it creates can concern the relation between the author and the context of reading, *id est* the machine, through the program. The interactivity is purely internal and the reader cannot look at the form. An adaptive generator tries to preserve a constant perception by changing the observable event. It changes the observable material in order to keep the perception of a certain aesthetic level. To do this, it makes measures while running that are nothing to do with the logic of the observable processes and it changes the logic of the program in function of the results of these measures. The syntactic animations that were published in *alire* are also adaptive generators. One

¹¹ Doc(k)s, « What’s your war ? », série 3, n° 25 à 28, Ajaccio, 2001.

¹² DWB n°4, Leuven, 1999

can perceive the form of the adaptive generator only while changing the context of reading (changing of machine for instance): “reading forbids seeing”

The adaptive generator claims one cannot reduce the work to its synchronic perceivable structures. One cannot reduce a digital poem to a multimedia work.

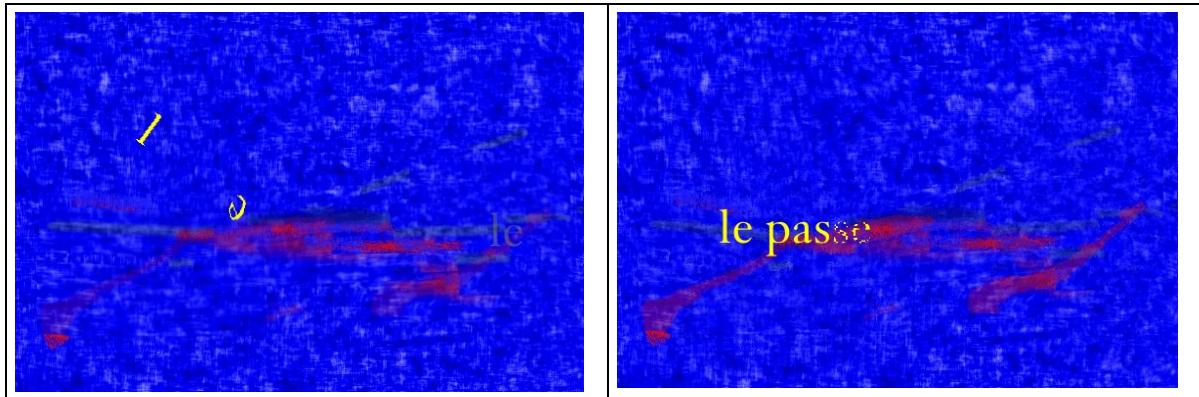


Figure 13 : Philippe Bootz, *la série des U*¹³

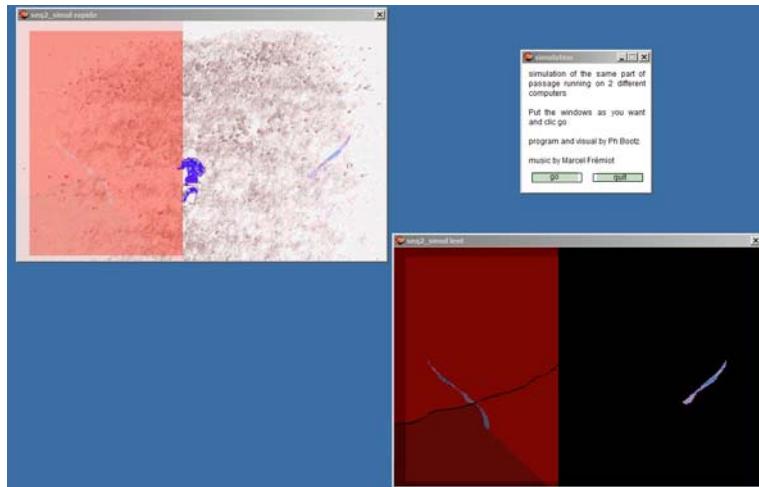


Figure 14 : Philippe Bootz, *simulation*¹⁴

2. 5 Conclusion.

This study is not exhaustive but it shows that exist original specific programmed forms. Using them, poetry is no more a simple question of text or hypertext. It develops its expressive forms through the totality of the situation of communication in which it is inscribed. Digital poetry is poetry of the “dispositif” (devices) that changes the relation between reading and the work, that changes the nature of reading.

NB : the French paper that followed this paper and that was published in rilune (Bootz, Philippe, « vers de nouvelles formes en poésie numérique programmée ? », *Rilune n°5 : littératures numériques en Europe, état de l’art*, juillet 2006, http://www.rilune.org/mono5/4_bootz.pdf) develops the study by taking into account different dimensions of works. I copy here the multidimensional classifications It makes:

¹³ *alire12*, MOTS-VOIR, 2004.

¹⁴ *DOC(K)S nature* série3 n° 34/35/36/37, AKENATON, Ajaccio, 2005

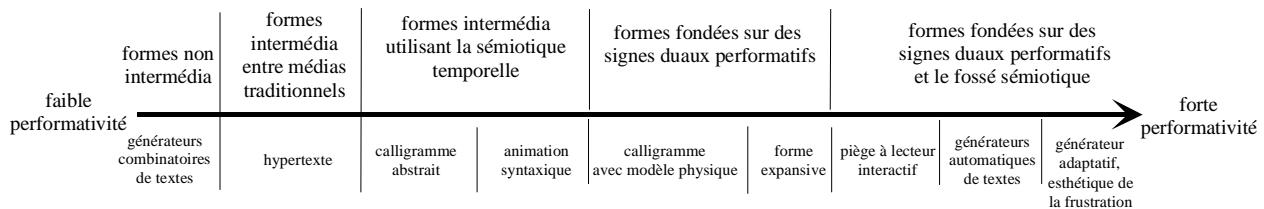


Figure 15 : classification selon l'axe performatif

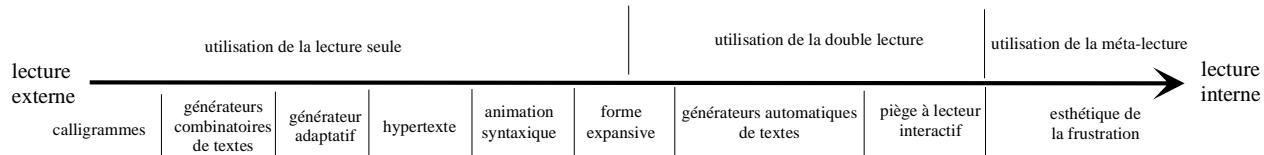


Figure 16 : classification selon l'axe lectoriel

forme	Générateur combinatoire	Générateur automatique	Générateur adaptatif	Calligramme abstrait	Calligramme avec modèle physique	Hypertexte	Animation syntaxique	Forme expansive	Piège à lecteur interactif	Esthétique de la frustration
Là	X			X	X		X			
Agie					X	X				
classe Agissante		2	3					1	1	2

Figure 17 : classification selon l'axe instrumental