Vegetal and Mineral Memory: The Future of Books

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WE HAVE THREE TYPES OF MEMORY. The first one is organic, which is the memory made of flesh and blood and the one administrated by our brain. The second is mineral, and in this sense mankind has known two kinds of mineral memory: millennia ago, this was the memory represented by clay tablets and obelisks, pretty well known in this country, on which people carved their texts. However, this second type is also the electronic memory of today's computers, based upon silicon. We have also known another kind of memory, the vegetal one, the one represented by the first papyruses, again well known in this country, and then on books, made of paper. Let me disregard the fact that at a certain moment the vellum of the first codices were of an organic origin, and the fact that the first paper was made with rugs and not with wood. Let me speak for the sake of simplicity of vegetal memory in order to designate books.

This place has been in the past and will be in the future devoted to the conservation of books; thus, it is and will be a temple of vegetal memory. Libraries, over the centuries, have been the most important way of keeping our collective wisdom. They were and still are a sort of universal brain where we can retrieve what we have forgotten and what we still do not know. If you will allow me to use such a metaphor, a library is the best possible imitation, by human beings, of a divine mind, where the whole universe is viewed and understood at the same time. A person able to store in his or her mind the information provided by a great library would emulate in some way the mind of God. In other words, we have invented libraries because we know that we do not have divine powers, but we try to do our best to imitate them.

To build, or better to rebuild, today one of the greatest libraries of the world might sound like a challenge, or a provocation. It happens frequently that in newspaper articles or academic papers some authors, facing the new computer and internet era, speak of the possible "death of books". However, if books are to disappear, as did the obelisks or the clay tablets of ancient civilizations, this would not be a good reason to abolish libraries. On the contrary, they should survive as museums conserving the finds of the past, in the same way as we conserve the Rosetta Stone in a museum because we are no longer accustomed to carving our documents on mineral surfaces.

Yet, my praise for libraries will be a little more optimistic. I belong to the people who still believe that printed books have a future and that all fears à propos of their

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disappearance are only the last example of other fears, or of milleniaristic terrors about the end of something, the world included.

In the course of many interviews I have been obliged to answer questions of this sort: "Will the new electronic media make books obsolete? Will the Web make literature obsolete? Will the new hypertextual civilization eliminate the very idea of authorship?" As you can see, if you have a well-balanced normal mind, these are different questions and, considering the apprehensive mode in which they are asked, one might think that the interviewer would feel reassured when your answer is, "No, keep cool, everything is OK". Mistake. If you tell such people that books, literature, authorship will not disappear, they look desperate. Where, then, is the scoop? To publish the news that a given Nobel Prize winner has died is a piece of news; to say that he is alive and well does not interest anybody -- except him, I presume.

WHAT I WANT TO DO TODAY is to try to unravel a skein of intertwined apprehensions about different problems. To clarify our ideas about these different problems can also help us to understand better what we usually mean by book, text, literature, interpretation, and so on. Thus you will see how from a silly question many wise answers can be produced, and such is probably the cultural function of naive interviews.

Let us start with an Egyptian story, even though one told by a Greek. According to Plato in Phaedrus when Hermes, or Theut, the alleged inventor of writing, presented his invention to the Pharaoh Thamus, the Pharaoh praised such an unheard of technique supposed to allow human beings to remember what they would otherwise forget. But Thamus was not completely happy. "My skillful Theut," he said, "memory is a great gift that ought to be kept alive by continuous training. With your invention people will no longer be obliged to train their memory. They will remember things not because of an internal effort, but by mere virtue of an external device."

We can understand the preoccupation of Thamus. Writing, like any other new technological invention, would have made torpid the human power which it pretended to substitute and reinforce. Writing was dangerous because it decreased the powers of mind by offering human beings a petrified soul, a caricature of mind, a mineral memory.

Plato's text is ironical, naturally. Plato was writing down his argument against writing. But he was also pretending that his discourse was told by Socrates, who did not write (since he did not publish, he perished in the course of the academic fight.) Nowadays, nobody shares Thamus's preoccupations for two very simple reasons. First of all, we know that books are not ways of making somebody else think in our place; on the contrary, they are machines that provoke further thoughts. Only after the invention of writing was it possible to write such a masterpiece of spontaneous memory as Proust's A la Recherche du Temps Perdu. Secondly, if once upon a time people needed to train their memories in order to remember things, after the invention of writing they had also to train their memories in order to remember books. Books challenge and

improve memory; they do not narcotise it. However, the Pharaoh was instantiating an eternal fear: the fear that a new technological achievement could kill something that we consider precious and fruitful.

I used the verb to kill on purpose because more or less 14 centuries later Victor Hugo, in his Notre Dame de Paris, narrated the story of a priest, Claude Frollo, looking in sadness at the towers of his cathedral. The story of Notre Dame de Paris takes places in the XVth century after the invention of printing. Before that, manuscripts were reserved to a restricted elite of literate persons, and the only thing to teach the masses about the stories of the Bible, the life of Christ and of the Saints, the moral principles, even the deeds of national history or the most elementary notions of geography and natural sciences (the nature of unknown peoples and the virtues of herbs or stones), was provided by the images of a cathedral. A mediaeval cathedral was a sort of permanent and unchangeable TV programme that was supposed to tell people everything indispensable for their everyday life, as well as for their eternal salvation.

Now, however, Frollo has on his table a printed book, and he whispers "ceci tuera cela": this will kill that, or, in other words, the book will kill the cathedral, the alphabet will kill images. The book will distract people from their most important values, encouraging unnecessary information, free interpretation of the Scriptures, insane curiosity.

During the sixties, Marshall McLuhan wrote his book The Gutenberg Galaxy, where he announced that the linear way of thinking supported by the invention of printing was on the verge of being substituted by a more global way of perceiving and understanding through TV images or other kinds of electronic devices. If not McLuhan, then certainly many of his readers pointed their finger first at a TV screen and then to a printed book, saying "this will kill that". Were McLuhan still among us, today he would have been the first to write something like "Gutenberg strikes back". Certainly, a computer is an instrument by means of which one can produce and edit images, certainly instructions are provided by means of icons; but it is equally certainly that the computer has become first of all an alphabetic instrument. On its screen there run words and lines, and in order to use a computer you must be able to write and to read.

Are there differences between the first Gutenberg Galaxy and the second one? Many. First of all, only the archaeological word processors of the early eighties provided a sort of linear written communication. Today, computers are no longer linear in so far as they display a hypertextual structure.

Curiously enough, the computer was born as a Turing machine, able to make a single step at a time, and in fact, in the depths of the machine, language still works in this way, by a binary logic, of zero-one, zero-one. However, the machine's output is no longer linear: it is an explosion of semiotic fireworks. Its model is not so much a straight line as a real galaxy where everybody can draw unexpected connections between different stars to form new celestial images at any new navigation point.

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YET IT IS EXACTLY AT THIS POINT that our unraveling activity must start because by hypertextual structure we usually mean two very different phenomena. First, there is the textual hypertext. In a traditional book one must read from left to right (or right to left, or up to down, according to different cultures) in a linear way. One can obviously skip through the pages, one -- once arrived at page 300 -- can go back to check or re- read something at page 10 -- but this implies physical labour. In contrast to this, a hypertextual text is a multidimensional network or a maze in which every point or node can be potentially connected with any other node. Second, there is the systemic hypertext. The WWW is the Great Mother of All Hypertexts, a world-wide library where you can, or you will in short time, pick up all the books you wish. The Web is the general system of all existing hypertexts.

Such a difference between text and system is enormously important, and we shall come back to it. For the moment, let me liquidate the most naive among the frequently asked questions, in which this difference is not yet so clear. But it will be in answering this first question that we will be able to clarify our further point. The naive question is: "Will hypertextual diskettes, the internet, or multimedia systems make books obsolete?" With this question we have arrived at the final chapter in our this-will-kill-that story. But even this question is a confused one, since it can be formulated in two different ways: (a) will books disappear as physical objects, and (b) will books disappear as virtual objects?

Let me first answer the first question. Even after the invention of printing, books were never the only instrument for acquiring information. There were also paintings, popular printed images, oral teaching, and so on. Simply, books have proved to be the most suitable instrument for transmitting information. There are two sorts of book: those to be read and those to be consulted. As far as books-to-be-read are concerned, the normal way of reading them is the one that I would call the "detective story way". You start from page one, where the author tells you that a crime has been committed, you follow every path of the detection process until the end, and finally you discover that the guilty one was the butler. End of the book and end of your reading experience. Notice that the same thing happens even if you read, let us say, a philosophical treatise. The author wants you to open the book at its first page, to follow the series of questions he proposes, and to see how he reaches certain final conclusions. Certainly, scholars can re-read such a book by jumping from one page to another, trying to isolate a possible link between a statement in the first chapter and one in the last. They can also decide to isolate, let us say, every occurrence of the word "idea" in a given work, thus skipping hundreds of pages in order to focus their attention only on passages dealing with that notion. However, these are ways of reading that the layman would consider as unnatural.

Then they are books to be consulted, like handbooks and encyclopaedias. Encyclopaedias are conceived in order to be consulted and never read from the first to the last page. A person reading the Encyclopaedia Britannica every night before sleeping, from the first to the last page, would be a comic character. Usually, one picks up a given volume of an encyclopaedia in order to know or to remember when

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Napoleon died, or what is the chemical formula for sulphuric acid. Scholars use encyclopaedias in a more sophisticated way. For instance, if I want to know whether it was possible or not that Napoleon met Kant, I have to pick up the volume K and the volume N of my encyclopaedia: I discover that Napoleon was born in 1769 and died in 1821, Kant was born in 1724 and died in 1804, when Napoleon was already emperor. It is therefore not impossible that the two met. In order to confirm this I would probably need to consult a biography of Kant, or of Napoleon, but in a short biography of Napoleon, who met so many persons in his life, a possible meeting with Kant can be disregarded, while in a biography of Kant a meeting with Napoleon would be recorded. In brief, I must leaf through many books on many shelves of my library; I must take notes in order to compare later all the data I have collected. All this will cost me painful physical labour.

Yet, with hypertext instead I can navigate through the whole net-cyclopaedia. I can connect an event registered at the beginning with a series of similar events disseminated throughout the text; I can compare the beginning with the end; I can ask for a list of all words beginning by A; I can ask for all the cases in which the name of Napoleon is linked with the one of Kant; I can compare the dates of their births and deaths -- in short, I can do my job in a few seconds or a few minutes.

Hypertexts will certainly render encyclopaedias and handbooks obsolete. Yesterday, it was possible to have a whole encyclopaedia on a CD-ROM; today, it is possible to have it on line with the advantage that this permits cross references and the non-linear retrieval of information. All the compact disks, plus the computer, will occupy one fifth of the space occupied by a printed encyclopaedia. A printed encyclopaedia cannot be easily transported as a CD-ROM can, and a printed encyclopaedia cannot be easily updated. The shelves today occupied at my home as well as in public libraries by metres and metres of encyclopaedias could be eliminated in the near future, and there will be no reason to complain at their disappearance. Let us remember that for a lot of people a multivolume encyclopaedia is an impossible dream, not, or not only, because of the cost of the volumes, but because of the cost of the wall where the volumes are shelved. Personally, having started my scholarly activity as a medievalist I would like to have at home the 221 volumes of Migne's Patrologia Latina. This is very expensive, but I could afford it. What I cannot afford is a new apartment in which to store 221 huge books without being obliged to eliminate at least 500 other normal tomes.

Yet, can a hypertextual disk or the WWW replace books to be read? Once again we have to decide whether the question concerns books as physical or as virtual objects. Once again let us consider the physical problem first.

Good news: books will remain indispensable, not only for literature but for any circumstances in which one needs to read carefully, not only in order to receive information but also to speculate and to reflect about it. To read a computer screen is not the same as to read a book. Think about the process of learning a new computer programme. Usually, the programme is able to display on the screen all the

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instructions you need. But usually users who want to learn the programme either print the instructions and read them as if they were in book form, or they buy a printed manual. It is possible to conceive of a visual programme that explains very well how to print and bind a book, but in order to get instructions on how to write, or how to use, a computer programme, we need a printed handbook.

After having spent 12 hours at a computer console, my eyes are like two tennis balls, and I feel the need of sitting down comfortably in an armchair and reading a newspaper, or maybe a good poem. Therefore, I think that computers are diffusing a new form of literacy, but they are incapable of satisfying all the intellectual needs they are stimulating. Please remember that both the Hebrew and the early Arab civilizations were based upon a book and this is not independent of the fact that they were both nomadic civilizations. The Ancient Egyptians could carve their records on stone
obelisks: Moses and Muhammad could not. If you want to cross the Red Sea, or to go from the Arabian peninsula to Spain, a scroll is a more practical instrument for recording and transporting the Bible or the Koran than is an obelisk. This is why these two civilizations based upon a book privileged writing over images. But books also have another advantage in respect to computers. Even if printed on modern acid paper, which lasts only 70 years or so, they are more durable than magnetic supports. Moreover, they do not suffer from power shortages and black-outs, and they are more resistant to shocks.

Up to now, books still represent the most economical, flexible, wash-and-wear way to transport information at a very low cost. Computer communication travels ahead of you; books travel with you and at your speed. If you are shipwrecked on a desert island, where you don't have the option of plugging in a computer, a book is still a valuable instrument. Even if your computer has solar batteries, you cannot easily read it while lying in a hammock. Books are still the best companions for a shipwreck, or for the day after the night before. Books belong to those kinds of instruments that, once invented, have not been further improved because they are already alright, such as the hammer, the knife, spoon or scissors.

TWO NEW INVENTIONS, however, are on the verge of being industrially exploited. One is printing on demand: after scanning the catalogues of many libraries or publishing houses a reader can select the book he needs, and the operator will push a button, and the machine will print and bind a single copy using the font the reader likes. This will certainly change the whole publishing market. It will probably eliminate bookstores, but it will not eliminate books, and it will not eliminate libraries, the only places where books can be found in order to scan and reprint them. Simply put: every book will be tailored according to the desires of the buyer, as happened with old manuscripts.

The second invention is the e-book where by inserting a micro- cassette in the book's spine or by connecting it to the internet one can have a book printed out in front of us. Even in this case, however, we shall still have a book, though as different from our

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current ones as ours are different from old manuscripts on parchment, and as the first Shakespeare folio of 1623 is different from the last Penguin edition. Yet, up to now e-books have not proved to be commercially successful as their inventors hoped. I have been told that some hackers, grown up on computers and unused to browsing books, have finally read great literary masterpieces on e-books, but I think that the phenomenon remains very limited. In general, people seem to prefer the traditional way of reading a poem or a novel on printed paper. E-books will probably prove to be useful for consulting information, as happens with dictionaries or special documents. They will probably help students obliged to bring with them ten or more books when they go to school, but they will not substitute for other kinds of books that we love to read in bed before sleep, for example.

Indeed, there are a lot of new technological devices that have not made previous ones obsolete. Cars run faster than bicycles, but they have not rendered bicycles obsolete, and no new technological improvements can make a bicycle better than it was before. The idea that a new technology abolishes a previous one is frequently too simplistic. Though after the invention of photography painters did not feel obliged to serve any longer as craftsmen reproducing reality, this did not mean that Daguerre's invention only encouraged abstract painting. There is a whole tradition in modern painting that could not have existed without photographic models: think, for instance, of hyper-realism. Here, reality is seen by the painter's eye through the photographic eye. This means that in the history of culture it has never been the case that something has simply killed something else. Rather, a new invention has always profoundly changed an older one.

To conclude on this theme of the inconsistency of the idea of the physical disappearance of books, let us say that sometimes this fear does not only concern books but also printed material in general. Alas, if by chance one hoped that computers, and especially word processors, would contribute to saving trees, then that was wishful thinking. Instead, computers encourage the production of printed material. The computer creates new modes of production and diffusion of printed documents. In order to re- read a text, and to correct it properly, if it is not simply a short letter, one needs to print it, then to re-read it, then to correct it at the computer and to reprint it again. I do not think that one would be able to write a text of hundreds of pages and to correct it properly without reprinting it many times.

Today there are new hypertextual poetics according to which even a book-to-read, even a poem, can be transformed to hypertext. At this point we are shifting to question two, since the problem is no longer, or not only, a physical one, but rather one that concerns the very nature of creative activity, of the reading process, and in order to unravel this skein of questions we have first of all to decide what we mean by a hypertextual link.

Notice that if the question concerned the possibility of infinite, or indefinite, interpretations on the part of the reader, it would have very little to do with the problem under discussion. Rather, that would have to do with the poetics of a Joyce,

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for example, who thought of his book Finnegans Wake as a text that could be read by an ideal reader affected by an ideal insomnia. This question concerns the limits of interpretation, of deconstructive reading and of over-interpretation, to which I have devoted other writings. No: what are presently under consideration are cases in which the infinity, or at least the indefinite abundance of interpretations, are due not only to the initiative of the reader, but also to the physical mobility of the text itself, which is produced just in order to be re-written. In order to understand how texts of this genre can work we should decide whether the textual universe we are discussing is limited and finite, limited but virtually infinite, infinite but limited, or unlimited and infinite.

First of all, we should make a distinction between systems and texts. A system, for instance a linguistic system, is the whole of the possibilities displayed by a given natural language. A finite set of grammatical rules allows the speaker to produce an infinite number of sentences, and every linguistic item can be interpreted in terms of other linguistic or other semiotic items -- a word by a definition, an event by an example, an animal or a flower by an image, and so on and so forth.

Take an encyclopaedic dictionary, for example. This might define a dog as a mammal, and then you have to go to the entry mammal, and if there mammals are defined as animals you must look for the entry animal, and so on. At the same time, the properties of dogs can be exemplified by images of dogs of different kinds; if it is said that a certain kind of dog lives in Lapland you must then go to the entry on Lapland to know where it is, and so on. The system is finite, an encyclopaedia being physically limited, but virtually unlimited in the sense you can circumnavigate it in a spiral-like movement, ad infinitum. In this sense, certainly all conceivable books are comprised by and within a good dictionary and a good grammar. If you are able to use an English dictionary well you could write Hamlet, and it is by mere chance that somebody did it before you. Give the same textual system to Shakespeare and to a schoolboy, and they have the same odds of producing Romeo and Juliet.

Grammars, dictionaries and encyclopaedias are systems: by using them you can produce all the texts you like. But a text itself is not a linguistic or an encyclopaedic system. A given text reduces the infinite or indefinite possibilities of a system to make up a closed universe. If I utter the sentence, "This morning I had for breakfast...", for example, the dictionary allows me to list many possible items, provided they are all organic. But if I definitely produce my text and utter, "This morning I had for breakfast bread and butter", then I have excluded cheese, caviar, pastrami and apples. A text castrates the infinite possibilities of a system. The Arabian Nights can be interpreted in many, many ways, but the story takes place in the Middle East and not in Italy, and it tells, let us say, of the deeds of Ali Baba or of Scheherazade and does not concern a captain determined to capture a white whale or a Tuscan poet visiting Hell, Purgatory and Paradise.

Take a fairy tale, like Little Red Riding Hood. The text starts from a given set of characters and situations -- a little girl, a mother, a grandmother, a wolf, a wood -- and through a series of finite steps arrives at a solution. Certainly, you can read the fairy

tale as an allegory and attribute different moral meanings to the events and to the actions of the characters, but you cannot transform Little Red Riding Hood into Cinderella.
Finnegans Wake is certainly open to many interpretations, but it is certain that it will never provide you with a demonstration of Fermat's last theorem, or with the complete bibliography of Woody Allen. This seems trivial, but the radical mistake of many deconstructionists was to believe that you can do anything you want with a text. This is blatantly false.

Now suppose that a finite and limited text is organised hypertextually by many links connecting given words with other words. In a dictionary or an encyclopaedia the word wolf is potentially connected to every other word that makes up part of its possible definition or description (wolf is connected to animal, to mammal to ferocious, to legs, to fur, to eyes, to woods, to the names of the countries in which wolves exist, etc.). In Little Red Riding Hood, the wolf can be connected only with the textual sections in which it shows up or in which it is explicitly evoked. The series of possible links is finite and limited. How can hypertextual strategies be used to "open" up a finite and limited text?

The first possibility is to make the text physically unlimited, in the sense that a story can be enriched by the successive contributions of different authors and in a double sense, let us say either two-dimensionally or three-dimensionally. By this I mean that given, for instance, Little Red Riding Hood, the first author proposes a starting situation (the girl enters the wood) and different contributors can then develop the story one after the other, for example, by having the girl meet not the wolf but Ali Baba, by having both enter an enchanted castle, having a confrontation with a magic crocodile, and so on, so that the story can continue for years. But the text can also be infinite in the sense that at every narrative disjunction, for instance, when the girl enters the wood, many authors can make many different choices. For one author, the girl may meet Pinocchio, for another she may be transformed into a swan, or enter the Pyramids and discover the treasury of the son of Tutankhamen. This is today possible, and you can find on the Net some interesting examples of such literary games.

AT THIS POINT one can raise a question about the survival of the very notion of authorship and of the work of art, as an organic whole. And I want simply to inform my audience that this has already happened in the past without disturbing either authorship or organic wholes. The first example is that of the Italian Commedia dell'arte, in which upon a canovaccio, that is, a summary of the basic story, every performance, depending on the mood and fantasy of the actors, was different from every other so that we cannot identify any single work by a single author called Arlecchino servo di due padroni and can only record an uninterrupted series of performances, most of them definitely lost and all certainly different one from another.

Another example would be a jazz jam session. We may believe that there was once a privileged performance of Basin Street Blues while only a later recorded session has

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survived, but we know that this is untrue. There were as many Basin Street Blues as there were performances of it, and there will be in future a lot of them that we do not know as yet, as soon as two or more performers meet again and try out their personal and inventive version of the original theme. What I want to say is that we are already accustomed to the idea of the absence of authorship in popular collective art in which every participant adds something, with experiences of jazz-like unending stories.Such ways of implementing free creativity are welcome and make up part of the cultural tissue of society.

Yet, there is a difference between implementing the activity of producing infinite and unlimited texts and the existence of already produced texts, which can perhaps be interpreted in infinite ways but are physically limited. In our same contemporary culture we accept and evaluate, according to different standards, both a new performance of Beethoven's Fifth and a new Jam Session on the Basin Street theme. In this sense, I do not see how the fascinating game of producing collective, infinite stories through the Net can deprive us of authorial literature and art in general. Rather, we are marching towards a more liberated society in which free creativity will coexist with the interpretation of already written texts. I like this. But we cannot say that we have substituted an old thing with a new one. We have both.

TV zapping is another kind of activity that has nothing to do with watching a movie in the traditional sense. A hypertextual device, it allows us to invent new texts that have nothing to do with our ability to interpret pre-existing texts. I have tried desperately to find an instance of unlimited and finite textual situations, but I have been unable to do so. In fact, if you have an infinite number of elements to play with why limit yourself to the production of a finite universe? It's a theological matter, a sort of cosmic sport, in which one, or The One, could implement every possible performance but prescribes itself a rule, that is, limits, and generates a very small and simple universe. Let me, however, consider another possibility that at first glance promises an infinite number of possibilities with a finite number of elements, like a semiotic system, but in reality only offers an illusion of freedom and creativity.

A hypertext can give the illusion of opening up even a closed text: a detective story can be structured in such a way that its readers can select their own solution, deciding at the end if the guilty one should be the butler, the bishop, the detective, the narrator, the author or the reader. They can thus build up their own personal story. Such an idea is not a new one. Before the invention of computers, poets and narrators dreamt of a totally open text that readers could infinitely re-compose in different ways. Such was the idea of Le Livre, as extolled by Mallarmé. Raymond Queneau also invented a combinatorial algorithm by virtue of which it was possible to compose, from a finite set of lines, millions of poems. In the early sixties, Max Saporta wrote and published a novel whose pages could be displaced to compose different stories, and Nanni Balestrini gave a computer a disconnected list of verses that the machine combined in different ways to compose different poems. Many contemporary musicians have produced musical scores by manipulating which one can compose different musical performances.

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All these physically moveable texts give an impression of absolute freedom on the part of the reader, but this is only an impression, an illusion of freedom. The machinery that allows one to produce an infinite text with a finite number of elements has existed for millennia, and this is the alphabet. Using an alphabet with a limited number of letters one can produce billions of texts, and this is exactly what has been done from Homer to the present days. In contrast, a stimulus-text that provides us not with letters, or words, but with pre-established sequences of words, or of pages, does not set us free to invent anything we want. We are only free to move pre-established textual chunks in a reasonably high number of ways. A Calder mobile is fascinating not because it produces an infinite number of possible movements but because we admire in it the iron-like rule imposed by the artist because the mobile moves only in the ways Calder wanted it to move.

At the last borderline of free textuality there can be a text that starts as a closed one, let us say, Little Red Riding Hood or The Arabian Nights, and that I, the reader, can modify according to my inclinations, thus elaborating a second text, which is no longer the same as the original one, whose author is myself, even though the affirmation of my authorship is a weapon against the concept of definite authorship. The Net is open to such experiments, and most of them can be beautiful and rewarding. Nothing forbids one writing a story where Little Red Riding Hood devours the wolf. Nothing forbids us from putting together different stories in a sort of narrative patchwork. But this has nothing to do with the real function and with the profound charms of books.

A BOOK OFFERS US A TEXT which, while being open to multiple interpretations, tells us something that cannot be modified. Suppose you are reading Tolstoy's War and Peace: you desperately wish that Natasha will not accept the courtship of that miserable scoundrel Anatolij; you desperately wish that the marvellous person who is Prince Andrej will not die, and that he and Natasha will live together forever. If you had War and Peace on a hypertextual and interactive CD-ROM, you could rewrite your own story according to your desires; you could invent innumerable "War and Peaces", where Pierre Besuchov succeeds in killing Napoleon, or, according to your penchants, Napoleon definitely defeats General Kutusov. What freedom, what excitement! Every Bouvard or Pécuchet could become a Flaubert!

Alas, with an already written book, whose fate is determined by repressive, authorial decision, we cannot do this. We are obliged to accept fate and to realise that we are unable to change destiny. A hypertextual and interactive novel allows us to practice freedom and creativity, and I hope that such inventive activity will be implemented in the schools of the future. But the already and definitely written novel War and Peace does not confront us with the unlimited possibilities of our imagination, but with the severe laws governing life and death.

Similarly, in Les Misérables Victor Hugo provides us with a beautiful description of the battle of Waterloo. Hugo's Waterloo is the opposite of Stendhal's. Stendhal, in La Charteuse de Parme, sees the battle through the eyes of his hero, who looks from

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inside the event and does not understand its complexity. On the contrary, Hugo describes the battle from the point of view of God, and follows it in every detail, dominating with his narrative perspective the whole scene. Hugo not only knows what happened but also what could have happened and did not in fact happen. He knows that if Napoleon had known that beyond the top of mount Saint Jean there was a cliff the cuirassiers of General Milhaud would not have collapsed at the feet of the English army, but his information in the event was vague or missing. Hugo knows that if the shepherd who had guided General von Bulow had suggested a different itinerary, then the Prussian army would have not arrived on time to cause the French defeat.

Indeed, in a role-play game one could rewrite Waterloo such that Grouchy arrived with his men to rescue Napoleon. But the tragic beauty of Hugo's Waterloo is that the readers feel that things happen independently of their wishes. The charm of tragic literature is that we feel that its heroes could have escaped their fate but they do not succeed because of their weakness, their pride, or their blindness. Besides, Hugo tells us, "Such a vertigo, such an error, such a ruin, such a fall that astonished the whole of history, is it something without a cause? No... the disappearance of that great man was necessary for the coming of the new century. Someone, to whom none can object, took care of the event... God passed over there, Dieu a passé."

That is what every great book tells us, that God passed there, and He passed for the believer as well as for the sceptic. There are books that we cannot re-write because their function is to teach us about necessity, and only if they are respected such as they are can they provide us with such wisdom. Their repressive lesson is indispensable for reaching a higher state of intellectual and moral freedom.

I hope and I wish that the Bibliotheca Alexandrina will continue to store this kind of books, in order to provide new readers with the irreplaceable experience of reading them. Long life to this temple of vegetal memory.

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