UNIVERSITÉ DE MONTRÉAL

THE PRACTICE OF MEMORY IN HYPERTEXT WOR(L)DS

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UNIVERSITÉ DE MONTRÉAL FACULTÉ DES ARTS ET DES SCIENCES

Cette Thèse intitulée

THE PRACTICE OF MEMORY IN HYPERTEXT WOR(L)DS

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Het aanstrepen en in de kantlijn schrijven is een soort stroom afblazen, een woordeloos terugpraten tegen zinnen die indruk maken. Je schreeuwt niet bij het lezen, maar er waren momenten waarop ik het liefst had gedaan. Het merkwaardigste vind ik nog dat ik onmogelijk kan onthouden wat er staat. Telkens als ik het boek opsla komen die onderstreepte passages als nieuw voor en dan dondert die waarheid weer over me heen.

— Connie Palmen, Geheel de Uwe, 2002 1

Connie Palmen in *Geheel de Uwe* (Amsterdam: Prometheus, 2002), 113. The quote is from her novel "All Yours." My translation from the Dutch: "Underlining and writing in the margins is like letting off steam, like talking back to sentences that impress us. You do not scream as you read, but there were moments when I wish that I could have. What I still find most surprising is that it is impossible for me to remember what has been written. Every time that I open the book, those underlined passages pop up as if they were new and that is when the truth hits me again."

Sommaire

L'hypertexte, ce récent paradigme textuel, a été vu comme une pratique de la pensée associative tout en étant critiqué, et même craint d'être une menace à la pensée historique et à l'alphabétisation. Perçu, surtout par des théoriciens des sciences humaines, comme superficiel et comme une pensée qui devient indifférente au temps, (à l'Histoire); l'hypertexte est soupçonné d'être le début de la fin d'une culture qui estime la mémoire par-dessus tout. Mon hypothèse est qu'au contraire l'hypertexte, à cause de sa nature rhizomatique, mieux que toute autre pratique culturelle, permet à ses lecteurs de devenir conscients des fonctionnements de la mémoire et de leur institutionnalisation.

En d'autres mots, dans cette thèse sur la pratique de la mémoire dans les mo(n)des hypertextes, je veux démontrer que l'hypertexte a le potentiel: 1) de devenir le site d'une compréhension différente de la mémoire; 2) d'aider le réapprentissage des chemins de la mémoire; 3) d'historiciser la façon dont la société occidentale moderne a traité la mémoire. Avec l'hypertexte, une toute nouvelle pédagogie de la mémoire est en jeu, pour lequel la mémoire en tant que pratique du souvenir, du rappel, de la pensée associative pourrait être l'archétype même.

Avec les médias électroniques de l'information, le texte et l'image peuvent être manipulés de diverses façons, autant par le lecteur que par l'écrivain qui en fait,

deviennent tous les deux des "lecteurs-créateurs" ou "artistes-chercheurs". Dû à l'interactivité, l'esthétique de l'hypertexte est basée sur le mouvement à travers des pratiques culturelles plutôt que sur des artefacts finis, ainsi que sur la fragmentation et la discontinuité (recyclage/collage) plutôt que sur une continuité, et sur une interactivité plutôt que sur une passivité linéaire. Comment est-ce que nous nous souvenons quand tout est en mouvement? Quand les barrières entre le sujet qui se souvient et l'objet qui doit être archivé sont floues? Quand les frontières du temps/espace deviennent de plus en plus problématiques à travers un recyclage culturel envahissant? En essayant d'aborder ces questions, parmi d'autres, cette thèse traitera de l'hypertexte comme le site des pratiques de la mémoire.

Dans mon parcours de la mémoire par association, le rapprochement d'icônes culturels aussi différents que *Madame Bovary* de Gustave Flaubert, Ernesto Che Guevara de Alberto Korda et *Anne of Green Gables* de L. M. Montgomery, me permettent de montrer les implications du réseau hypertextuel quant à d'autres compréhensions et d'autres pratiques de la mémoire. Par ailleurs, la bibliothèque labyrinthique de Borges et le rhizome de Deleuze et Guattari, deviendrons les icônes théoriques qui aideront à mieux comprendre et à ré-apprendre une lecture autre dans laquelle s'inscrit l'hypertexte.

Prise entre la linéarité imposée par l'écriture et le modèle de l'hypertexte, cette thèse a été pensée et rédigée comme si elle débordait de son cadre à la manière des

pratiques et des oeuvres culturelles étudiées ici. Puisqu'une oeuvre d'art continue à voyager et à resurgir dans différents médias et différents modes d'expression, cette thèse montre qu'aucune analyse culturelle ne peut être vraiment gravée ou fixée.

Mots-Clefs:

hypertexte - mémoire - rhizome - liens - icônes culturelles - littérature - texte fragment - lecteur - pédagogie - communauté - réseau - surface - absorption métamorphose - lurker - labyrinthe - Gilles Deleuze - Félix Guattari - Jorge Luis
 Borges - Ernesto Che Guevara - Madame Bovary - L. M. Montgomery -

Résumé

LA PRATIQUE DE LA MÉMOIRE DANS LE MO(N)DE HYPERTEXTE

Afin de permettre un questionnement et une exploration par la mise en action d'hyperliens, une lecture hypertextuelle est formée avant tout de reprises et de débris fragmentaires. Fragmentée, cette thèse si elle avait pu être présentée sous forme numérique et hypertextuelle aurait eu une dynamique qu'il lui manque sous format papier. Cette réflexion interroge l'hypertexte comme pratique culturelle de la mémoire ou plus précisément comme pratique d'une pédagogie de la mémoire, que j'appelle une «carte de la mémoire culturelle sur le Web». Elle s'inscrit dans une étude de l'hypertexte comme une pratique qui modifie le comportement d'un lecteur et son rapport à la mémoire, son appartenance à une communauté ainsi que sa relation à la lecture.

Penser l'univers de la mémoire au sein des sciences humaines en tenant compte du virage des nouvelles technologies suscite un débat qui demande une réflexion sur la transmission du savoir et sur le rôle des pédagogues des pratiques culturelles. J'ai analysé la mémoire dans une nouvelle pratique «esthétique», en l'occurrence, la pratique hypertextuelle. Dans cette pratique de l'hypertexte et de la mémoire par association, le rapprochement d'icônes culturels aussi différents que *Madame Bovary* de Gustave Flaubert, Ernesto Che Guevara de Alberto Korda et *Anne of Green Gables* de Lucy Maud Montgomery, me permettent de montrer les implications du réseau hypertextuel quant à d'autres compréhensions et

d'autres pratiques de la mémoire. Par ailleurs, la bibliothèque labyrinthique de Borges et le rhizome de Deleuze et Guattari, deviendrons les icônes théoriques qui aideront à mieux comprendre et à ré-apprendre une lecture autre dans laquelle s'inscrit l'hypertexte.

Faire des sauts de lecture dans chacun des liens du réseau textuel revient au texte décrit par Antoine Compagnon dans *La Seconde main*, où il met en scène «l'homme aux ciseaux» lisant en coupant des passages pour ne retenir que l'essentiel. Les citations répétées des lectures antérieures mettent en mémoire un réseau étendu de liens. L'hypertexte est un ample système conceptuel, une «grande toile» heuristique où il est possible de lire, d'écrire et de transmettre du matériau culturel à dimensions variables qui donne lieu à de nouvelles considérations et de jonctions quand il s'agit d'examiner notre héritage mémoriel et son mode de transmission.

L'hypertexte s'inscrit dans une intertextualité non-canonique et non pas dans un parcours de lecture obligatoire. Il se situe plutôt dans l'esprit d'une lecture aléatoire, poussée par la curiosité. J'ai tenté lors de ce travail de répéter l'anticipation borgésienne de la Bibliothèque de Babel menant à la quête de la mémoire et de la pédagogie d'une culture textuelle livresque depuis toujours fragmentaire et annonciatrice de l'hypertexte.

Ce sont les pédagogues, sorte de gardiens du savoir, de l'archivage et de la

transmission des liens qui vont avoir le rôle de rendre les connexions et les détours kaléidoscopiques entre des textes et des concepts disponibles et identifiables. Pour reprendre Gilles Deleuze et Félix Guattari dont les pensées m'ont inspiré tout au long de cette réflexion: «tout concept a une histoire en zigzag. Dans un concept, il y a des morceaux ou des composantes venus d'autres concepts.»² De même, l'hypertexte s'organise à partir des fragments d'une histoire en zigzag. C'est en suivant les traces et les morceaux d'une histoire; en essayant de repérer les interférences et les manières dont on l'a recyclée et reprise, que le lecteur pourra distinguer et déplier une mémoire culturelle faite de rencontres et d'entrelacements. L'hypertexte confronte le lecteur au mo(n)de du texte où il faut de plus en plus lâcher prise avec l'idée d'un original; d'une authenticité.

Face à la présence de plus en plus visible du texte métamorphosé sous forme hypertextuelle, les questions auxquelles j'ai tenté de répondre au cours de cette thèse étaient de l'ordre de: Qu'est-ce que la mémoire? Le maillage rhizomatique? Une communauté? Et l'appartenance culturelle à travers des icônes? Ainsi que la promotion de la lecture? J'y ai répondu par le constat que la présence d'une pratique de la mémoire dans la réutilisation d'une icône culturelle permet la persistance de la tradition par sa répétition et son insistance mais aussi par son recyclage. De ce constat, découle la question: Dans quelle mesure, les communautés des réseaux électroniques sont-elles à la fois des communautés de la différence et de la mémoire?

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² Gilles Delcuze and Félix Guattari, *Qu'est-ce que la Philosophie?* (Paris: Éd. de Minuit, 1991), 23.

Cette nouvelle configuration du savoir que l'on retrouve avec l'hypertexte créerait avant tout, la possibilité d'avoir accès à des références, à des allusions, à tout un passé culturel; serait une nouvelle école où l'on peut apprendre à tisser les liens d'une mémoire que l'on se ré-approprie, que l'on recycle.³

Le recyclage appartient à la transition d'une dynamique à une autre, c'est aussi le passage d'une mémoire à une autre. Évidement, il ne suffit pas de tout «décharger» sur les réseaux électroniques, il faut aussi savoir trouver et suivre des pistes. Le recyclage et la reprise des matériaux culturels dans une pratique hypertextuelle ne mènent pas nécessairement à un oubli ou à une perte. Il s'agira ici de montrer comment l'art de recycler notre mémoire dépend de nos capacités de créer nos reconnaissances. L'hypertexte permet l'apprentissage d'une mémoire culturelle et aussi de retrouver des intertextes.

L'hypertexte opère un décadrage perpétuel à partir d'idées ou de souvenirs figés, où il s'agit de passer d'un point fixe en point fixe et en même temps, mobile. La mémoire fait jonction entre différents matériaux; tout comme un texte qui sans une mémoire de textes antérieurs ne peut unir idée, concept et raison. Dans

Silvestra Mariniello dans « Le discours du recyclage» in Claude Dionne, Silvestra Mariniello, Walter Moser, eds. *Recyclages, Économies de l'appropriation culturelle*, (Montréal: Les Éditions Balzac, 1996) explique que: «Les médias accélèrent les processus de recyclage culturel en éliminant ou en réduisant les barrières géographiques, linguistiques, culturelles, et sociales. Aussi, les médias rendent le phénomène de reprise visible en tant que reprise: le passage d'un médium à un autre (de l'écriture au cinéma, par exemple) rend plus visible le « recyclage » d'un discours, d'un personnage, d'une situation. La vitesse, d'autre part, qui caractérise la production discursive des

l'hypertexte, nous nous faisons distraire par le cadre absorbant de la surface d'un écran, où il nous faut tenir compte du fait que les cadres et les repères culturels qui attirent l'attention du lecteur changent. Pourtant face à l'oubli, le lecteur tourne toujours autour des mêmes fils qui sont repris incessamment. À Umberto Eco de noter qu'il a: «redécouvert que les livres parlent toujours d'autres livres, et chaque histoire raconte une histoire déjà racontée » et de renchérir, «c'est pourquoi mon histoire ne pouvait que commencer par le manuscrit retrouvé, c'est pourquoi cette histoire aussi serait une citation.» Il y a la perpétuation d'une mémoire livresque en ce que chaque œuvre ou icône sont distinctes et porteuses de nouveauté même si beaucoup se ressemblent, elles sont souvent des variations qui vont transformer le champ poétique. Ainsi, une icône qui a un impact reconnaissable finira par entrer dans la mémoire.

Dans cette étude, il s'agira de rentrer dans l'expérience d'une communauté de «lecteurs-créateurs» de la mémoire. C'est une communauté qui ne peut plus se passer du «clavardage» et de la «navigation» et pour qui l'écrit et la lecture reprennent sens dans une tentative de reconstitution de la mémoire. Ici, un document est au service de la découverte et découle d'une hypothèse heuristique d'une nouvelle littérature engagée dans une idéologie de l'ouverture telle que vu dans l'exemple ici des listes de discussions sur Internet consacrées à Montgomery. J'ai choisi le terme d'hypothèse heuristique afin de souligner une volonté de

médias, raccourcit le temps qui sépare les diverses manifestations d'un discours et attire l'attention sur la répétition, sur la réintroduction du déjà vu ou du déjà entendu.», 9.

⁴ Umberto Eco, Apostille Au nom de la Rose (Paris: Grasset, Livre de Poche, 1985), 25.

découverte qui réside dans la lecture hypertextuelle. Cette métamorphose esthétique du texte ou nouveau paradigme esthétique dira Guattari dans *Chaosmose*, a pour idée de base de localiser l'hypertextualisation au niveau d'une pédagogie qui va permettre une lecture d'une mémoire dite associative.

En terme de structure, l'introduction de cette thèse met en place des définitions de l'hypertexte, la première partie se penche sur les pratiques de l'hypertexte, la seconde partie analyse l'importance de la mémoire comme un archétype en ce qui a attrait à une pratique du souvenir et de la pensée associative dans la pratique hypertextuelle. Quant à la troisième partie, elle se penche sur les liens de lecture ainsi que l'hypertexte comme une manière de promouvoir le goût de lire et le projet d'un monde connecté qui s'inscrit dans la possibilité d'acquérir des connaissances à l'intérieur d'une mémoire collective ainsi qu'une nouvelle forme d'entraînement de la mémoire.

Summary

Hypertext has often been discussed as a practice of associative thinking while being criticized, or even feared, as a threat to historical thought and to literacy. Seen especially by scholars in the humanities as superficial and as a thought that grows indifferent to time, (to history); hypertext is suspected of being the beginning of the end of a culture that valued memory above all things. My hypothesis is that hypertext, because of its rhizomatic nature, allows the reader to become aware of the workings of memory and of their institutionalization better than any other cultural practice. In other words, hypertext, has the potential of: 1) becoming the site of a new understanding of memory; 2) helping to relearn the ways of memory; 3) historicizing the way modern Western society has dealt with memory. A whole new pedagogy of memory is at stake within hypertext of which memory as a practice of remembrance, recollection, associative thinking could be the very archetype.

In the electronic media of the information age, text and image can be manipulated in a variety of ways, both by the reader and the writer who, in fact, both become "reader-creators" or "artist-researchers." Due to interactivity, hypertextual aesthetics is based on movement across cultural practices rather than finished artefacts, on fragmentation and discontinuity (recycling/collage) rather than continuity, and on interactivity rather than linear passivity. How do we remember when all is moving? When the barriers between the remembering subject and the

object to be archived are blurry? When boundaries between time and space become more and more problematic through a pervasive cultural recycling? Trying to address these questions, among others, this thesis deals with hypertext as a site of memory practices.

In the associative memory, the coming together of cultural icons as different as Gustave Flaubert's *Madame Bovary*, Alberto Korda's Ernesto Che Guevara and L. M. Montgomery's *Anne of Green Gables*, allows me to show the implications of hypertext networking with regard to other understandings and practices of memory. Furthermore, Borges' labyrinthic library as well as Deleuze and Guattari's rhizome become the theoretical icons that help to understand and to teach a different literacy in which hypertext inscribes itself.

Caught between the linearity imposed by writing and the hypertext model, this thesis was thought and written as if it were spilling out of its frame just as the practices and cultural works studied herein. No cultural analysis can really be frozen; as this thesis shows, a work of art continues to travel and to re-emerge in different media and modes of expression.

Keywords:

hypertext - memory - rhizome - links - cultural icons - literature - text - fragment - reader - pedagogy - community - networking - surface - absorption - metamorphoses - lurker - labyrinth - Gilles Deleuze - Félix Guattari - Jorge Luis Borges - Ernesto Che Guevara - Madame Bovary - L. M. Montgomery -

Table of Contents

Sommaire	iv
Résumé	vii
Summary	xiii
Table of Contents	
Acknowledgements	
INTRODUCTION	
Hypertext Practices	
Linking and Mixing Wor(l)ds	
Icons Crossing Cultures and Continents	
Practices of Memory	15
I. HYPERTEXTUAL PRACTICES	23
The Written Language of Memory	23
Beyond the Book-Form, Back to Associative Practices	34
Through Absorbing Practices	47
Through Gleaning Practices	54
Through Immersing Practices	60
Through Replacement Practices	63
ICONS	75
Deleuze and Guattari's Rhizome	75
Rhizomatic Practices	
Archiving Practices	82
Practices of Repetition or Difference?	
II. MEMORY PRACTICES: ON MEMORY AS AN ARCHETYPE	91
Transmitting Memory and Connecting Knowledge	91
Making (Relevant) Memory Clicks	
(In)voluntary Memory	
Rhizome Access Fragmented Memory	
Memento or Body Inscriptions for Reconstructing Memory	
Hyperreal Memories of a Collective Memory	128
A Lurker's Memory	136
ICONS	145
Madame Bovary Lost in Reading Memories	
Getting lost	
Beyond Reality	
Living the Life of Rooks	157

Anne of Green Gables Reminiscing on the Net	
Collective Reading Memories	
Creating Collecting Memories in Hyperreality	169
III. HYPERTEXT READING LINKS: A PEDAGOGY OF MEMORY	175
Reading Promotion	
Intertexts and Reading Links	176
The Pleasure of Hypertext or Reading as an Investigation	
Encyclopaedic Memory or a Dissemination Reading Network	
Recycling Memory in the Rhizomatic Labyrinth	
ICONG	207
ICONS	
Borges' Library	207
Caught up in a Book	207
Reading Links in <i>The Library of Babel</i>	
The Labyrinthic Book of Sand	
Reading El Che	
Recycling of a (Re)Framed Picture	
Intermediating the Aura of a Cultural Icon	
Rhizomatic Linking	256
CONCLUSION: HYPERTEXT, THE MEMORY OF CULTURAL ICONS.	259
The Icons	261
BIBLIOGRAPHY	269
SELECTED FILMOGRAPHY	281
	1

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Introduction

Hypertext Practices

What can popular Western cultural icons⁵ as diverse as Gustave Flaubert's *Madame Bovary*, Alberto Korda's Ernesto Che Guevara photograph and Lucy Maud Montgomery's *Anne of Green Gables* possibly have in common? Despite the non-linearity in this association of names, the practice of memory in hypertext networking allows for these icons to meet against all odds of any linear traditional hierarchy.

The practice of memory relies on the usual media —a novel, a film, a painting, a photograph or score—where the final work is of extreme value because a work of art once finished attains a stable condition. In the electronic media of the information age, however, text and images can be manipulated in a variety of ways, both by the reader and the writer who, in fact, both become "artist-

⁵ Rather than speaking in terms of "figures" which are more part of linguistic studies, I choose the term "icon" to designate the chosen cultural examples studied in this thesis were motivated by the visual aspect of a hyperlink often called an icon, as in a symbol on a computer screen used in hypertext documents. The icon here is based on the Greek (εικονα) word for an image. Also, as the hypertext icon asks for a clicking performance or for something like a clue to be followed, I wish to also use the idea of an action when it comes to clicking on a hyperlink icon. For me, Madame Bovary, Anne of Green Gables, and Korda's photograph of Ernesto Che Guevara are icons because like the clickable image icons present in hypertexts, they can lead to multiple hyperlinked associations. One can also see Jay David Bolter's study on hypertext where he claims: "Although an icon may have a name, it is above all a picture that performs or receives an action, and that action gives the icon its meaning. The word "icon" is more appropriate than programmers may realize." In Writing Space, The Computer, Hypertext, and the History of Writing (Hillsdale, New Jersey: Lawrence Erlbaum Associates, 1991), 52.

researchers" or what I call "reader-creators." Reader-creators because these readers must themselves create their links. Due to interactivity, hypertextual aesthetics is based on movement across cultural practices. Rather than finished artefacts, it works on fragmentation and discontinuity (recycling/collage) rather than continuity, and on interactivity rather than linear passivity. Borges' labyrinthic library (defined in section III) and Deleuze and Guattari's rhizome (defined in section I) are the theoretical icons for another pedagogical literacy in which hypertext inscribes itself.

A belief in the potential of electronic media as a powerful new learning milieu prompted me to study the presence of new media in cultural practices and particularly at hypertext as a cartography of a memory. Broadly defined, hypertexts may be seen as computerized documents that can become excellent archival research environments, for they have the potential to give access to reference and memory-linked documentation.

This work deals with the hypertextual cartography of memory and its purpose is to enable the reader —as well as myself— to elucidate the nature of hypertextual practices as transgressing textual maps for rethinking and reshaping memory. The idea is that hypertext works in a manner similar to memory as a semantic network

⁶ Hervé Fischer in his article: "Les artistes-chercheurs ont un rôle déterminant dans la nouvelle économie" (Montréal: *La Presse*, Forum, mardi 20 mars 2001, p. A17), uses "artists-researchers", an expression he borrows from sociologist Lucien Goldmann to designate multimedia artists of the 80's and artists in general, as pioneers who innovate society and have the intuition for future communication models and new tendencies.

in which texts, images and ideas from books, films, paintings, photographs or music are linked together by association.

This analysis shall attempt to demonstrate through different cultural practices how hypertextual ways of documenting storage and transmission are producing new approaches to knowledge acquisition. By studying in turn novels, short stories, films, web sites, web based listservs, and photographs, I shall question the cultural practice of memory and its repetition as well as its resistance.

My hypothesis, confirmed by observation, is that instead of following a canonical and culturally fixed methodology; that is, hierarchical, cultural practices and various media should instead be shared in order to develop what I call a pedagogy of memory. Pedagogy of memory, as we will see, deals with how to find, read, teach, research, transmit, and archive— voluntarily as well as involuntarily— the associations provided by memory links. Sharing these memories is done by mixing various media such as fragments from books, films, paintings, photographs, or musical scores.

Hypertext includes zapping, clicking, quoting, connecting and linking documentation fragments as well as passing through or absorbing, gleaning, immersing, multiplying, archiving, repeating, and replacing intertextual rhizomatic memory practices.

The word *practice* should be understood here as a custom, a habit, an action, or a way of reading a cultural performance that affects the way we remember or recollect. Practices of memory are not rehearsals or repeated activities, although we shall see that repeated cultural objects in different media do question the ways in which objects are shared, remembered, and recuperated.

But, here is a first common definition of hypertext:

Hypertext describes a program that provides multiple pathways through text enabling the user to follow existing hyperlinks, to link related items of text together in a non-linear and random access manner.⁷

Hypertext may seem to belong exclusively in computer programs and to be possible only because of browsing programming devices. However, we shall see that hypertext is a more complex reality and, more specifically, that it is much more than a tool providing the user with multiple pathways, that it is also a way of thinking and remembering, especially thinking about the workings of knowledge and memory.

I recognize the benefits as well as the limitations of hypertextual computer-aided instruction when the transmission of memory is at stake. In fact this study sees hypertext practices as a memory-place, essentially replacing the book and the library as memory-place.

This thesis attempts to grasp the nature of hypertextual practices within today's literate information society. By exploring certain characteristics of networked media through the recurrence of cultural icons in film, literature and photography, I will try to show how hypertext transgresses the boundaries of specific artistic disciplines by linking these objects. My hypothesis states that hypertexts, like *travelling icons*⁸ create a movement across cultures and disciplines, in order to open up the interrelations or dialogues between cultural documents. The image of travelling cultural objects emphasizes the fact that a text in the broad sense of the term undergoes changes through time, different cultural spaces, different media and diverse interpretations.

The aim of this dissertation is to consider the impact of the passage of cultural objects as well as the appropriation, translation and transformation of ideas and icons across cultures and continents in the electronic media of the information age. In studying how works of art are recycled and appear in different media and disciplines, I will consider several intellectual exchanges and reappropriations of cultural thought. Necessarily, I shall also go further and question the possible losses and gains suffered by cultural objects in their transfer to other media. These objects present on the global marketplace are greatly accessible through digitization; the usual analog media, books, films, paintings, photographs or music can be translated into pixels and digits in order to be stored in electronic databases.

⁷ In *The Cyberspace Lexicon*, Bob Cotton and Richard Oliver, (London: Phaidon, 1994), 98.

While icons can be related to a tradition, they are not stable and do not hold a continuity. The ramifications, traditions and histories of associations of icons often go off on a tangent.

Although inhabited by the resistance that hypertext opposes to traditional writing practices, this analysis wishes to show how different media criss-cross references in a random-access manner when it comes to cultural productions of reminiscence. For, in our contemporary remix culture, cultural objects like text, images, and ideas blend and link whilst media occurrences do not always fit the frame of a page nor a book nor a canvas.

Linking and Mixing Wor(l)ds

Mixes or combinations of various cultural objects allow for new perspectives to emerge, and as I questioned hypertext and hypertextual practices, my research necessarily spread in several different directions, because a hypertext would, by its very nature, open up not only different questions but also many types of documents. The composition of this "text" keeps demanding practices other than the mere use of ink and paper ordered in a chapterlike form. In fact, the use of several media would have been more effective to illustrate the cross-referencing or combinations of various cultural objects. However the institutional restraints do not allow such a thesis presentation.

In the recent editions of the Oxford Dictionary of Current English, *hypertext* has also been defined as the

[p]rovision of several texts on one computer system, with cross-references from one to another just as the *hypermedial* cultural world in which we live, is the provision of several media (e.g. audio, video and graphics) on one computer system, with cross-references from one to another.

Hypermedia and hypertext are now one and the same because the convergence of intermedial technologies has made it possible nowadays for a hypertextual document not only to connect written words (or *lexias* as George P. Landow says in accordance with Roland Barthes' terminology) but also to link to the other media worlds of non-textual information such as audio, video and graphics.

Features of hypertextual practices have emerged more and more in the last decade due to the growing use of computers and the electronic highways such as the Internet. Historically the beginnings of hypertext are often attributed to Vannevar Bush who already spoke in terms of links, traces and webs that are nowadays commonplace.

Hypertextual studies often historically pinpoint Vannevar Bush's 1945 As We May Think article about his "Memex" concept and Ted Nelson's "Xanadu" project as a starting point. For Vannevar Bush, it was important to take into consideration the fact that the human mind works through associations when it comes to classifying knowledge. Already in 1945, he was preoccupied with the growing number of scientific publications and worried about their classification. Articles and studies on hypertext often return to Bush's Memex information disposition. In 1967, in his article "Science is not Enough", he still believed in an information

storage and retrieval device designed to augment the memory capacity of its users but thought that it could not yet be accessed. Now, of course we know that we can have access to large memory storage.

As for Ted Nelson, he was looking for an electronic alternative to publishing in the late 1970's. For him, computers were the "Dream Machines" of the hypertext which he saw as an ongoing system of interconnecting documents that when quoted, were actually attached by a hyperlink to the quoting text. Nelson's vision of a link was designed to let searchers of a large database explore and compare texts so as to look up related topics and references in order to create a new mix or combination of connecting ideas or documents. Associative thinking and comparisons are, of course, not new cultural practices, but jumping from one category to another through links instead of hierarchical indexed linear searching was going to be much more efficient with new information technologies.

In the same way as film is for Pier Paolo Pasolini the written language of reality, hypertext, by repeating, or re-enacting the associative work of memory could be seen as the written language of memory. In fact hypertext makes us aware of associations and its practice teaches its agents the ways of memory and the cognitive paths of associative thinking. Because hypertext has the capacity to assemble word, image and sound, this multimedia language is not only textual but also visual and oral.

Hypertext illustrates the remix logic or resampling that makes up cultural production today based on memory downloads made to be reused. Becoming familiar with a subject –let alone understanding it– through the practice of hypertext changes the idea of knowledge and the faculty of recalling or remembering by allowing knowledge to be more associative than logical. The practice of hypertext instills the capacity to recall cultural memories. This means that memory which has traditionally been preserved over the ages and committed to written culture as the only holder of knowledge is no longer configured to print; it can also be digitized, stored and organized hypertextually in a computer memory. One of the hypotheses I advance in this thesis, as I will show, is that hypertext is memory's written language.

Sampling is one of the forms used in this work. While you read or, rather, as your thoughts wander through this thesis, it may sometimes seem to run like a hypertext, precisely because it is very fragmented. You may wonder about the relevance and the coherence of certain subjects that are brought up — this is intentional — for this text is an attempt to bring together subjects that could only be related by the way reminiscences link, as I will show, and may not seem structured at all.

This text will lilypad through what could seem farfetched ideas or bits of cultural souvenirs but this will be done in order to show how hypertexts operate in a similar way. I have made this methodological choice in order to demonstrate the

associative memory practices created by strong iconic images that are gleaned in hypertext.

Fragmentation is a defining characteristic of hypertext, which is made up of fragments and repetitions. Hypertexts are thus reading paths where one wanders into the adventure of knowledge seeking.

Icons Crossing Cultures and Continents

The visual pointer icon can easily create a link in the same manner as memory links up souvenirs and fragments of recollections in order to build up a story. The connection of fractured memory images in a hypertextual way, my focus here is on the relation between hypertextuality and memory.

In hypermedia computer system studies, links are described as being "highlighted text" and "button-like objects." The link between two fragments, sometimes called "cards", is represented by a link icon such as

If the user moves the mouse so that the cursor is over the icon and clicks the mouse button, the system "traverses" the link by retrieving the destination

⁹ Landow concluded in his second analysis on hypertext that discussing hypertextual narratives and fictions "involves deducing its qualities from the defining characteristics of hypertext- its non- or multilinearity, its multivocality, and its inevitable blending of media and modes, particularly its tendency to marry the visual and the verbal. Most who have speculated on the relation between hypertextuality and fiction, concentrate, however, upon the effects it will have upon linear narrative." In George P. Landow, *Hypertext 2.0, The Convergence of Contemporary Critical Theory and Technology* (Baltimore: The Johns Hopkins University Press, 1997), 183.

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card of the link and displaying it on the screen in a window to be read or edited. 10

The different *cultural icons* examined here even if I see them as precursors of hypertextual practices though not as hypertexts in the strict electronic sense of the term. In the different *sections*¹¹ or should I say, *sites* that follow, each cultural example or case triggers off and is absorbed by broad hypertextual practices. My thesis deals with cultural icons (in the form of literary, cinematographic and photographic images) and shows how they are recuperated through hypertextual networking.

Icons are traditionally known as holy paintings or statues but in today's electronic culture, icons are also these images that function as the symbol on a computer screen in the form of a digitized image to be clicked on just as for example the following visual pointer icon: \(\xi \) This icon in the form of an arrow or cursor is the image the reader uses to point and click on the screen.

gy M. Irish and Randall H.Trigg, "Supporting Collabora

¹⁰ Peggy M. Irish and Randall H.Trigg, "Supporting Collaboration in Hypermedia: Issues and Experiences." In *The Society of Text*, Edward Barrett, ed. (Cambridge, Massachusetts: MIT Press, 1989), 93.

¹¹ The difficulty I encountered in organizing and especially in having to code-name or to divide what I hesitated in calling the *parts* of the thesis. For I wondered whether they should be called *sections*, *chapters*, or *paragraphs*? Or even just *sites*? Divisions used to organize a book illustrate the canonical way of print culture that always needs to categorize, to make sections and subsections whereas thinking in terms of hypertext practices is an exercise of thought association where one follows memory lane and does not necessarily work as if being put into a chapter-like format. Web lingo likes to speak in terms of navigation from one site to the other.

Rhetorically, icons are synecdoches, figures in which a part is made to represent a whole. ¹² Icons in semiotics are signs that have a signifier even if their referent does not exist. For example, the iconic image of a saint does not prove this person exists or ever existed. However, iconicity to a certain extent implies resemblance with its meaning. For example, in the story of Robinson Crusoe, the footprint that Crusoe sees in the sand does not look like a foot, but the form is sufficiently in tune with the contours of a foot to be able to function as a clue or a sign on the basis of similarity. In this case, the sign signals the presence of a human being.

This analysis deals with texts that lead the reader meandering and exploring the ramifications of the rhizome composed of the popular cultural icons of an associative memory. Icons as different as Gustave Flaubert's Madame Bovary, L. M. Montgomery's Anne of Green Gables and Alberto Korda's Ernesto Che Guevara will show the implications of hypertext networking with regard to other understandings and practices of memory.

It is no coincidence that Jean-Paul Sartre, Julian Barnes and many other authors have written on Flaubert's famous character while J. Renoir (1934) and C. Chabrol

¹² As Tzvetan Todorov explained in the *Dictionnaire encyclopédique des sciences du language*: "L'icône est ce qui exhibe la même qualité, ou la même configuration de qualités, que l'objet dénoté, par exemple une tache noire pour la couleur noire; les onomatopées, les diagrammes qui reproduisent des relations entre propriétés. Pierce amorce encore une subdivision des icônes en images, diagrammes et métaphores. Mais, on le voit aisément, en aucun cas on ne peut assimiler (comme on le fait souvent erronément) la relation d'icône à celle de ressemblance entre deux signifiés (en termes rhétoriques, l'icône est une synecdoque plutôt qu'une métaphore: peut-on dire que la tache noire ressemble à la couleur noire ?); ni, encore moins, celle d'indice à celle de contiguïté entre deux signifiés (la contiguïté dans l'indice est entre le signe et le référent, non entre

(1991) have brought Madame Bovary to the big screen. On the other hand, the fact that Canadian freckle-faced, red-haired, romantic Anne Shirley of *Anne of Green Gables* is popular not only in Canada, but around the world is also significant.

This literary character has been reused so often that it has spin-offs¹³ including musicals, films, television series, T-shirts, dolls, and a tourist industry as well as a very chatty Lucy Maud Montgomery community shared by reminiscing readers on the Internet. Irene Gammel in editing two books that examine Montgomery within Canadian iconography and the national and international popular culture that is derived from Montgomery's literature cleverly describes the popularity of Montgomery's cultural icons phenomena by saying:

No other author has had Montgomery's sustained power to export Canadian literature and culture around the world. 14

The boundaries between fiction and reality disappear in the hyperreal simulacrum. And why not? Some young Islanders grow up believing that Anne really existed and are disappointed when they first learn that Anne, like Santa Claus is fictional.

[O]nce situated within the domain of popular culture, Montgomery's name becomes a complex construct. No longer does it represent just the author of books; it also represents the author behind a 'pop culture' industry that includes musicals, films, tourist sites, an official provincial licence plate, dolls, postcards, t-shirts, spin-off books, and much more, as Montgomery's value spawns a multimillion dollar industry in tourism and entertainment.¹⁵

deux entités de même nature). Pierce met d'ailleurs expressément en garde contre une telle identification", 115.

¹⁵ İbid., 5.

¹³ See the essays in *Making Avonlea, L.M Montgomery and Popular Culture*, Irene Gammel, ed. (University of Toronto Press, 2002) and also the essays on "Anne as Cultural Icon" in *L.M Montgomery and Canadian Culture*, Irene Gammel and Elizabeth Epperly, eds. (University of Toronto Press, 1999)

¹⁴ Irene Gammel, "Making Avonlea: An Introduction" in *Making Avonlea, L.M Montgomery and Popular Culture*, op. cit., 3.

Montgomery no longer "represent[s] just the author of books; it also represents the author behind a 'pop culture' industry". These words can refer to many other cases. Indeed in the proliferation of media, several other popular cultural icons take on many facets and emerge under several formats in diverse worlds. Hypertext practices will show how icons are perpetuating as well as changing the aura surrounding a certain popular cultural memory.

Besides *Emma Bovary* and *Anne of Green Gables*, I will scrutinize another icon: the "Che" as reproduced in Korda's famous photograph: a face to be found in films, in books, at tourist sites, on postcards, on T-shirts, and more (see Figure 1 on page 242). Precisely because hypertext includes zapping and clicking modes, the recycled picture of the "Che" will be able to show this incongruous memory meander.

In this context, hypertext practices encouraged by increased use of the Internet, inevitably question associative reminiscences and the practices of memory as well as memory loss. Two other icons guide me in this journey, Borges' labyrinthic library and his infinite Book of Sand on the one hand, and Deleuze and Guattari's rhizome, on the other. The first icons crystallize the labyrinthic nature of cultural memory. Deleuze and Guattari's rhizome helps the reader to understand and to teach a different literacy in which hypertext is inscribed.

Practices of Memory

The first section or site of our analysis uses textual clippings or tag words that attempt to explain what hypertext is in order to highlight the importance of hypertextual practices in our contemporary cultural practices. A second section deals with memory practices by exploring the nature of hyperreality through the stories of *Madame Bovary* and the postings of the faithful readers of *Anne of Green Gables* on the Internet. The third site shifts focus to the importance of a pedagogy of memory where the hypertext model seems to offer a partial answer to the question: why do cultural practices nowadays recycle cultural objects rather than turn to the question of origin? For this, we read Borges' labyrinthic vision of cultural memory, and the over-reproduced recycled photograph of the Guerrilla activist Che Guevara.

The abrupt rambling or jumps from one subject to another, subject-hopping or "du coq à l'âne" as the French expression goes, are done purposely to illustrate memory's wanderings. What may seem at first glance to be totally irrelevant will fall into place once it has been understood that this analysis, just like a hypertext, disseminates ideas in order to take a walk down memory lane.

One should keep in mind that memory does not work in a fixed orderly fashion; souvenirs do not pop up in a stable and fixed manner. Marcel Proust, of course, has shown us how memory loss can be retrieved through involuntary memories

being brought up through writing. In Marcel Proust's 1913 *Du côté de chez Swann*, art is the only way to find memory or lost moments of remembrance because reality is created within memory.

Soit que la foi qui crée soit tarie en moi, soit que la réalité ne se forme que dans la mémoire, les fleurs qu'on me montre aujourd'hui pour la première fois ne me semblent pas de vraies fleurs. 16

Comparatist J. Hillis Miller in his article "The Ethics of Hypertext", argues that in *A la recherche du temps perdu*, "Marcel treats his memories as though he had a hypertext program for moving around with them" and that the possibility of making a great number of links in Proust's masterpiece "can be seen as a huge database of memories." In the following quote, Miller explains that when reading Proust "making recollections and cross-referencing memory inside the text" like in a hypertext is what readers are taught to do:

A la recherche du temps perdu can be seen as a huge database of memories. Marcel treats his memories as though he had a hypertext program for moving around within them. Anywhere you begin will lead ultimately by a series of links everywhere else in that vast storage disk of recollections, but this will not happen according to any predetermined pathways. We readers must do the same. We are constantly coached into doing the same by the narrator's intricate system of cross-references. These are not entirely unlike hypertext links, though in order to be a good reader of Recherche the reader must have stored the whole enormous text in his or her memory and do the work a hypertext does for you. The good reader of this novel will connect whatever passage he or she is reading with earlier, similar passages and create a virtual

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Marcel Proust, Du côté de chez Swann, "Combray" (Paris: Gallimard, Collection Folio, 1987), 182 [In English from the translation by C.K.Scott Montcrieff, (New York: Random House, Inc, 1928), this quote goes as follows: "Whether it be that the faith which creates has ceased to exist in me, or that reality will take shape in the memory alone, the flowers that people show me nowadays for the first time never seem to me to be true flowers."

¹⁷ J. Hillis Miller, "The Ethics Of Hypertext" in *Diacritics 25.3* (Baltimore, MD: Johns Hopkins University Press, Fall 1995), 37.

hypertext without the aid of any machine other than the printed pages and his or her own memory. 18

Art is made up of the author's reminiscences even though certain affective souvenirs fall into oblivion. They can, however, resurface in particular circumstances, as in that famous passage when the author experiences his involuntary memory arising once the madeleine has been dipped into a cup of tea. Whereas voluntary memory turns to intelligence through specific points of reference, affective and involuntary memory allows for a particular souvenir to come up unforeseeably among countless souvenirs. Involuntary souvenirs are impressions coming from an emotion, an aroma, a flavour or a sound that in turn can provoke reminiscences.

Hypertext deploys itself as involuntary memory does and, a hypertext link can elicit a series of associations just as Proust's madeleine triggers off the links of involuntary associative memories. Similarly, hypertexts have the capacity to redistribute documentation networks. Relocation of documents within hypertextual structures can reorganize and rearrange references and thus be picked up again in order to reappear within cultural practices.

However, hypertextual wanderings can occur in such a manner that they will lead the way through constellations of information coming from many diverse media.

As already stressed, an electronic document is a mix of several cultural practices:

¹⁸ Ibid.

The idea of hypertext is that one has an electronic document in which each page might have buttons leading not to one single next page but to many possible next pages. Hypertext can include sounds, images, film clips, and computer demonstrations as well as words.¹⁹

If we consider documents of a written, graphic and spoken nature, we may assume that documentation archives contain information that could be qualified as cultural memory. In a sense, hypertexts redistribute a memory network. Even if, every revisited, reused or rediscovered document is often found in a particular referential or intertextual context, its redistribution is nonetheless the recovery of a temporary repeated memory.

Associative-thinking links illustrate the very essence of hypertext readings. Hypertextualized readings seem to occur within unorganized textualities, where there need not be a table of contents. In fact, it looks more like an index where one can click clusters, to explore ideas that have been grouped together.

Hypertexts within their undefined movements work against established structures and authorities because they are opposed to centralized thinking and may sometimes seem to misguide the reader. The kind of reader who is used to following an organized path using no initiative will, indeed, gets lost. Text documents in which the author has laid out a structured reading plan divided into

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¹⁹ Rudy Rucker, R.U. Sirius & Queen Mu, *Mondo 2000, A User's Guide to the New Edge* (New York: HarperCollins books, 1992), 148.

paragraphs, chapters, sections and a chronological set of writings guided by the rules of print have long-been the way to present a text.

Although hypertext often uses established ideas within the cultural institutions as a starting point, drawing from cultural canons and archives to set a concatenation into motion, it is decentralized. At the same time, it mostly allows unexpected wanderings so that just as souvenirs surface and are reminiscent of the Proustian madeleine from *Remembrance of Things Past*, hypertext wanderings allow for memories to emerge and encourage the search for points of reference and links.

Hypertexts are mostly made up of reactivated cultural remains; nevertheless, they are different from archival practices because hypertexts do not work like a neatly structured storage place. The text you are about to explore is constructed as much as possible as a hypertext. The different topics and questions are dealt with in a way to provoke dispersed wanderings from one idea to the next one just as within hypertexts the reader wanders from one link to the other. In fact, if this thesis could have been presented electronically, it would have illustrated its purpose by being pointer clickable

Despite its paper format, this work seeks the interactivity which illustrates a hypertext so clearly. It is set up in such a way that the different fragments presented under the different headings need not be read in a fixed order, they can

be read either separately or in random order. To indicate this possibility on paper, I have deliberately repeated certain textual fragments as if they were the hyperlinks that form the web structure of these thoughts from which one can travel to-and-fro.

The landmark book by Gilles Deleuze and Félix Guattari A Thousand Plateaus inspired this work as I noticed that the subject of hypertext could not be treated in a fixed and linear fashion. Their choice of a fragmented format and especially their analysis on the rhizome have definitely informed this analysis.

Already, Deleuze and Guattari insisted on working together in such a manner that their texts would not be identified to either one of them. Their ideas would be networked in different *plateaus* in order to produce a collective as if their intellectual approach was as prolific as their storage of souvenirs and conversations. Working together on philosophy, literature, cinema and psychoanalysis, these creative thinkers resisted reductionism and totalizing visions such as the Oedipal theory or a Marxist approach. Also, rather than seeing *Remembrance of Things Past* as the deploying of a whole memory or the attempt to close the past in a story, Deleuze saw Proust's work as the coming together of fragmented multiple worlds.²⁰

Particular iconic objects can trigger off such multiple worlds. In *Proust et les signes*, Deleuze calls them signs, like the *madeleine*, the *church towers*, or the

cobblestones in Remembrance of Things Past. They show how a world of memory can emerge from an unconscious souvenir. Deleuze acknowledges the problems of interpretations but also acknowledges how we seek to experience a revelation or a meaning through particular signs:

Tout se passe comme si la qualité enveloppait, retenait captive l'âme d'un autre objet que celui qu'elle désigne maintenant. Nous « développons » cette qualité, cette impression sensible, comme un petit papier japonais qui s'ouvrirait dans l'eau et libérerait la forme prisonnière. Les exemples de cette sorte sont les plus célèbres de la Recherche, et se précipitent à la fin (la révélation finale du «temps retrouvé» se fait annoncer par une multiplication des signes). Mais quels que soient les exemples, madeleine, clochers, arbres, pavés, serviette, bruit de la cuiller ou d'une conduite d'eau, nous assistons au même déroulement. D'abord une joie prodigieuse, si bien que ces signes se distinguent déjà des précédents par leur effet immédiat. D'autre part une sorte d'obligation sentie, nécessité d'un travail de la pensée: chercher le sens du signe (il arrive pourtant que nous nous dérobions à cet impératif, par paresse, ou que nos recherches échouent, par impuissance ou malchance: ainsi pour les arbres). Puis, le sens du signe apparaît, nous livrant l'objet caché - Combray pour la madeleine, des jeunes filles pour les clochers, Venise pour les pavés...²¹

Deleuze in *Proust et les signes* also points out that the confrontation of multiple worlds makes signs, or in my analysis I would rather say *icons*, which appear differently and can never be deciphered in the same way:

L'unité de tous les mondes est qu'ils forment des systèmes de signes émis par des personnes, des objets, des matières ; on ne découvre aucune vérité, on n'apprend rien, sinon par déchiffrage et interprétation. Mais la pluralité des mondes est que ces signes ne sont pas du même genre, n'ont pas la même manière d'apparaître, ne se laissent pas déchiffrer de la même façon, n'ont pas avec leur sens un rapport identique.²²

²⁰ Gilles Deleuze, *Proust et les Signes* (Paris, PUF, 1964) or see *Proust and Signs* for the English translation. Translated from the French by Richard Howard, (New York: G. Braziller, 1972).
²¹ Ibid., 18-19.

From this viewpoint, multiple-linked sections of words coming from different worlds and multiple pathways will be a major figure for understanding hypertextual practices. Even beyond multiple ways, I believe that the rhizome, introduced by Deleuze and Guattari, helps greatly in understanding how a hypertext functions. Indeed, I shall show in the following section that their nomadic, scattered approach actually illustrates how memory practice works.

²² Ibid., 11.

I. Hypertextual Practices

The Written Language of Memory

In hypertext, the rhizome has been used to describe a copy-cut-and-paste, sampling, fragment linker. The rhizome has no centre and ramifies in various directions without having a limit. As Deleuze and Guattari explained: "n'importe quel point d'un rhizome peut être connecté avec n'importe quel autre, et doit l'être. C'est très différent de l'arbre ou de la racine qui fixent un point, un ordre." Thus, thinking hypertext as a rhizome is thinking that any link can be made between any two fragments that the reader wishes to connect in some way. Because hypertextual linking practices offer nomadic, scattered multiple pathways, the readers make arrangements of multiple-linked sections of wor(l)ds.

Hypertexts can immerse the reader in the associative constellation of memory fragments and souvenirs. Hypertext can be conceived as a way of providing links or as a *practice* capable of activating the links within the images of cultural memories.

²³ Gilles Deleuze and Félix Guattari, "Rhizome", in *Mille Plateaux, Capitalisme et schizophrénie* (Paris, Éditions de Minuit, 1980), 13.

Hypertext is based on a number of iconic images that are the junction points or so-called hyperlinks between cultural pasts and learning processes. These links allow the reader to enter the dynamics of collective memory.

This is what I will show when demonstrating how the active Internet-based Lucy Maud Montgomery readers interact by linking their childhood memory to the icon of Anne of Green Gables. These readers are now reminiscing about experiences of their own reality through e-mail discussions; they are using hypertext organized web pages based on their favourite author and they are increasingly forming a collective inter-linked scrapbook in a daily life experience.

The icons that are used as triggers in hypertexts often treat words as images on which to click in order to encourage our cultural activity. With these word-images and through the gesture of clicking, the rhizomatic nature of culture and of knowledge becomes accessible.

According to Pier Paolo Pasolini, cinema makes reality accessible in a different way. ²⁴ I propose here to link to Pasolini's discourse on film, and by doing so, I suggest that hypertext reproduces memory's language, like writing re-produces oral language.

²⁴ See Pier Paolo Pasolini in *Heretical Empiricism* (Bloomington: Indiana University Press, 1988).

- Language is composed of oral language and written language.
- Cinema is to reality what written language is to oral language.
- Cinema makes us aware of reality as language.
- Reality is already a language, more precisely: an oral language.

In Pasolini's theory of film as written language of reality, it appears that film sensitizes us to the fact that reality is already a language. In other words, film-reproducing reality makes us understand that reality just like the practice of hypertext makes us aware of how memory works, and perhaps reveals a potential of hypertext not yet seen.

In other words, the practice of hypertext makes the cyber-gleaner aware of the associative nature of memory and knowledge just as, according to Pasolini, cinema's audio-visual signs reveal reality. For Pasolini, the images seen in cinema make us aware of the invisible language of reality.

Anticipating the next section, my hypothesis is that memory as a practice of remembrance, recollection and associative thinking can be considered as the archetype of hypertext, and that in fact hypertext is like the written language of memory.

Moving from the idea that memory functions as a pre-existing practice of hypertextuality, this work thus raises questions about art, memory, history, representation, and the institutions of knowledge. In looking at remembrances, I shall also consider the repetition of several concepts and ideas when thinking about hypertext. One of them will be the "rhizome" that has been repeatedly referred to as an illustration of how hypertextuality functions.

When querying the problem of the archived document in the age of the digitized document, we shall see that on the World Wide Web, we are in between text archives, in search of links. Browsing within hypertext leads to knowledge sharing as well as combining the real and the digital.

According to Montreal-based artist, sociologist and philosopher Hervé Fischer,²⁵ icons are a culture's visual condensations. Functioning like hyperlinks, icons are perfect résumés or frames of cultural practices:

L'art est iconique, ou il n'est pas.

Ces icônes nous apparaissent comme des condensations visuelles symbolisant dans leur structure, leur esthétique et leur thème, les structures, les valeurs et les préoccupations principales de la société qui les porte. Elles renvoient donc aux grands mythes de chaque société. Elles deviennent des images sociales référentielles majeures.

²⁵ Mythanalyse Du Futur, by Hervé Fischer, was published on the Internet in 2000. The text can be seen and read free of charge at http://www.hervefischer.ca/fr/mf.html. A review on the web site says that: "The publication of this book was not decided on by a reading committee and publisher, but by an author."

La même analyse s'applique évidemment à une sculpture, une architecture, une œuvre musicale, cinématographique ou littéraire, à une chorégraphie. ²⁶

L'imagination du futur vient du passé; les idées qui jaillissent comme des fleurs, plongent leurs racines dans la mémoire des théories ancestrales.²⁷

Icons are major cultural references, for "art is iconic or is not art" (L'art est iconique ou n'est pas) as Hervé Fischer also explains:

The question is not one of reality's resistance to, or its vanishing into, a triumphant virtual parallel world, but of the close and creative hybridizing between reality and its powerful and expanding digital simulacrum. Here is the foundation of an innovative society. For example, allow me to prophesy that virtual shopping centers like Amazon.com will soon open real urban boutiques which will support each other and enjoy the best of both worlds, for our convenience and therefore its own financial success, if it is not so proud of its original radical vision that it is blinded to the advantages of this strategy. In the beginning of the computer image, creators defended 100% pure computer-generated graphics without any video capture; but nowadays, we aim to combine real and digital production. 28

We want the best of both worlds and try to preserve all memories. From this vantagepoint, the redistributed knowledge network is more of a scattering where going from 'click to click' metamorphosizes the text as the reader goes along. When gleaning from one site to another, text changes in one click, giving way to a new transmission. While passing from one electronic page to another, the reading path creates rhizomatic "reading leaps", between and within texts. I suggest here that there is a link between the continuous metamorphosis of the text and the rhizomatic reading.

27 This 10

²⁸Again click and see Hervé Fischer's web site where features the following text: "To Be Or Not To Be...Digital" see http://www.hervefischer.ca/fr/mf.html

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²⁶ Ibid., 160.

Hypertexts interlink by using cross-reference examinations. This is essential when one uses a browser like the nowadays popular www.google.com search engine, for many references appear depending on the search words gleaned but they are ephemeral. For even if archives can be found, one has to know that an archive exists in order not to repeat what has already taken place, and miss a relevant link by being unaware of its existence.

Even though the redistributed knowledge network is scattered, knowledge remains a network, and this network implies redistribution because every link conjures up a different fragment of information or memory.

But again, remembrances are not necessarily memories of an original time and space – in the linear sense of thinking that memory happens in a particular time and space. We can create souvenirs by linking together document fragments without them having necessarily to be either from the same moment in time or from the same space.

With the possibilities of modifying any document when using the new media technologies, creating document memories is now beyond reality needs. Any document can be either changed or created from another existing piece without anyone ever needing to know from whence it came or how it was recycled and brought back to the public eye. News broadcasts are constantly confronting us

with the question: "is this picture for real?" We see, hear and read things and we are not sure how they were composed, sampled or put together?

In the information age, virtual memory has changed the real into the hyperreal. This is what Jean Baudrillard implied when he said: "simulation is the generation by models of a real without an origin or a reality: a hyperreal." ²⁹

We shall see in my scattered examples how new technologies can repeat memories so that for example, Lucy Maud Montgomery readers remember childhood readings, but can also deform and create them from scratch by linking up and mixing each other's memories. Linking and looking for multiple recycling of cultural images will on a very different note, make me glean and link to the sampling reutilization of images like the iconic memory created by the Korda photograph of Ernesto Che Guevara.

According to Umberto Eco in his 1986 essays *Travels in Hyperreality*, popular culture in the United States holds many cultural models that look so much like the original that not knowing their origin does not even matter or that the original

When there are no references left, when resurrections become artificial, nostalgia takes all its importance. For Jean Baudrillard in *Simulacres et Simulation*: "Lorsque le réel n'est plus ce qu'il était, la nostalgie prend tout son sens. Surenchère de vérité, d'objectivité et d'authenticité secondes. Escalade du vrai, du vécu, résurrection du figuratif là ou l'objet et la substance ont disparu. Production affolée du réel et de référentiel, parallèle et supérieure à l'affolement de la production matérielle: telle apparaît la simulation dans la phase qui nous concerne – une stratégie du réel, de néo-réel et d'hyperréel, que double partout une stratégie de dissuasion." 17. It is not about a false representation but it is about hiding the fact that the real is not real anymore and for Baudrillard, it is about the importance of saving a principle of reality: "Il ne s'agit plus d'une représentation

would seem unimportant if compared to the copy. However, a copy even if it is just as real or even more real (as the prefix "hyper" suggests) is repeating a memory.

For example, in his article "Parthenon, Nashville – From the Site of History to the Sight of Memory" published in the volume on cultural recycling, *Waste Site Stories*, Éric Méchoulan analyzes whether the replica of a famous building can be seen as authentic, or whether it is just as real or even more real. Or, as Méchoulan claims, the replica creates a new history of relationships and does not just repeat a memory. When contemplating the famous Parthenon not in Athens but in Nashville, Tennessee, Méchoulan wonders:

What does it mean to possess a Parthenon at home, when one is not Athenian? Not a small reproduction, mind you, but the re-creation of a full-scale Parthenon. Such is the experience of any Nashville citizen. But what kind of experience is it to behold a modern Parthenon amidst the green spaces of Nashville Centennial Park –a nice place, indeed, for a Sunday stroll?³⁰

For Méchoulan, the experience of a Sunday stroll to the Nashville Parthenon is that of an immediate moment in time uniting past and present and leaving behind the conscious dimension of history possible in Athens. Whereas in Nashville, "[t]hey are able to resist loss and temporal damage, because they unite the very

fausse de la réalité (l'idéologie), il s'agit de cacher que le réel n'est plus le réel, et donc de sauver le principe de réalité" in *Simulacres et Simulation*, (Paris: Galilée, 1981), 26.

³⁰ Éric Méchoulan, "Parthenon, Nashville – From the Site of History to the Sight of Memory", in Brian Neville and Johanne Villeneuve, eds. *Waste Site Stories* (Albany NY: State University of New York Press, 2002), 143.

ancient and the very new without any obvious break"31, on the European continent experiencing the Athenian Ruins takes past and present apart. Méchoulan talks about a rupture in time that can never be re-experienced and, I suppose, can only be lived as the loss of a history.

Now, experience of ruins and experience in ruins are two different things. Historical experience is an experience of a caesura, of a rupture between past and present; it is structured by the loss of the past as present. History is an experience of mediation; it is an experience of ruins. At Parthenon, Nashville, history seems to offer the experience of immediacy, but-paradoxically enough—an immediacy of duration; history as tradition, not as scientific discourse; history as something present, not as an object of study. A "shortsighted" history, so to speak.32

Can we say then that only an aura remains in Athens for tourists to glean? It should then come as no surprise that, where originality is indeed the result of "fake-recycling," something like a Nashville Parthenon would be designated as an "original replica"—that is, as Méchoulan puts it, a site that "dissolves time in the immediacy or synchronicity of its presentation" ³³

"Nowadays people experience it not only as a locus of history, but as a place of memory."34 According to Méchoulan, collective memory must communicate a common feeling of identity and, even more, of immediacy. Méchoulan argues that the replica creates a new history of relationships. Fair enough, but I believe that a

³¹ Ibid., 147. ³² Ibid., 148.

³³ Ibid., 149.

³⁴ Ibid., 149-150.

Sunday stroll to the Parthenon takes a whole other dimension now that I can travel to either Athens or Nashville simply by browsing the Internet.

In my opinion, the experience of searching for these buildings through image replicas can be just as authentic. Furthermore, the hypertext experience of the Parthenon acquired by clicking personal web sites of tourist pictures taken during a visit to either Athens or Nashville are for the web sites gleaner that I am, a way of sharing memories without having visited either place physically.

For example, taking a virtual tour of the Parthenon in Nashville, Tennessee, can be done by browsing the hypertextual slideshow on the web site at the following URL: http://www.nashville.gov/parthenon/tour.htm where it is indeed explained that:

The Parthenon stands proudly as the centerpiece of Centennial Park, Nashville's premier urban park. The re-creation of the 42-foot statue Athena is the focus of the Parthenon just as it was in ancient Greece. The building and the Athena statue are both full-scale replicas of the Athenian originals.

Originally built for Tennessee's 1897 Centennial Exposition, this replica of the original Parthenon in Athens serves as a monument to what is considered the pinnacle of classical architecture. The plaster replicas of the Parthenon Marbles found in the Naos are direct casts of the original sculptures which adorned the pediments of the Athenian Parthenon, dating back to 438 B.C. The originals of these powerful fragments are housed in the British Museum in London.

The Parthenon also serves as the city of Nashville's art museum. The focus of the Parthenon's permanent collection is a group of 63 paintings by 19th and 20th century American artists donated by James M. Cowan. Additional gallery spaces provide a venue for a variety of temporary shows and exhibits.

Of course, the Parthenon stands as an icon of Ancient Greece. Visiting the original Parthenon in Athens remains in the pure tradition of linear history telling, browsing a new history of relationships between originals and copies invites to rethinking memory practices and values. Why? I believe that just a tourist trip to history in order to be able to claim "been there, done that, seen it all," is less educational than forming an opinion after having experienced a variety of cross-references referring to what a Parthenon is and can still become. To this end, a web search on the Parthenon can be highly valuable.

Becoming aware of recycling is about learning history, yes, but history in today's Athens is in the present. It is history exposed to the contamination of time, pollution, alteration and forgetting. The pedagogical aspect of browsing through a new history of relationships whether on the World Wide Web, in Nashville or in the 'real' Greek capital depends upon a different encyclopaedic ideal of experiencing the Athenian Parthenon and having the possibility of discovering all its facets, recurrences and copies and not just a tourist trip to the authoritative Acropolis nowadays media staged with *son et lumière*. In the same way, we shall see how tourists travel the globe looking for traces of the past and how fans come back from Cuba wearing a Che Guevara T-shirt or travel to Prince Edward Island in the hope of catching a glimpse of Green Gables.

Beyond the Book-Form, Back to Associative Practices

Hypertextual writing creates a semiotic blur of cross-referencing. Every word is, in principle, a hot word that is linked to endless chains of reference, which, in turn, are linked to other referential traces. Furthermore, these networks are not fixed or stable but are constantly changing and shifting. The text is no more secure than the author is authorative.

By pushing the encyclopaedic ideal to its outer limit, hypertextual networks bring its collapse.

Hypertext is a thinker toy.³⁵

The above-boxed citation, which functions here as a recurring hyperlink, comes from a printed book. I have staged it as if it were a hyperlink to click on to remind us that there is a thread here, making us aware of the endless chain of references.

See the inserted image on the next page, in order to compare the simple text frame above with the designed and graphically disposed typography fragment on the actual page of the book

Here, the page really pops out and absorbs our gaze:

³⁵ Marc C. Taylor & Esa Saarinen, Telewriting, in *Imagologies, media philosophy*, (New York: Routledge, 1994), 8.

Hypertextual writing creates a semiotic blur of cross-referencing. Every word is, in principle, a hot word that is linked to endless chains of reference, which, in turn, are linked to other referential traces. Furthermore, these networks are not fixed or stable but are constantly changing and shifting. The text is no more secure than the author is authoritative. y pushing the encyclopedic ideal to its outer limit, hypertextual networks bring its collapse. Hypertext i S thinkertoy $oldsymbol{ au}$ clewriting struggles to be less than perfectly transparent. Printed words on the page are not merely windows to ideas re-presented by the author. To the contrary, the play of the grapheme lends the surface of the text an importance it does not enjoy in printed works. Paradoxically, the dematerialization of the text on the video screen creates the possibility for the reemergence of the materiality of writing.

This citation comes from *Imagologies, media philosophy*, a book composed of graphic design layouts or text fragments which originally were the e-mail exchanges between two friends speculating on the nature and ways of the new electronic media. In this book, the authors try to transcend the printed format by framing blocks of text in the same way that computer word-processing has made it possible to surround text in different colours and boxes.

Over the last two decades, new writing technologies made accessible through the personal computer have made writers and readers alike experience new ways of expressing ideas through collage and montage and thus slowly leave the print frame.

On the problem of keeping a frame structure, George P. Landow, author of one of the first books on hypertext theory published in 1992, described in the chapter entitled: "How I Am Writing This Book", his frustration on writing about hypertext in the form of "an old-fashioned form, a book." Landow writes how shifting from the typewriter to a word-processing program on a computer changed his text-writing habits. In his book, Landow relates his longing for a hypertextual mode where he would be able to link abstracts or fragments:

[P]roduce a book, not by conventional argument, but by creating brief essays, almost abstracts, on the six or seven main points of convergence between these two attitudes toward textuality and then linking nested arrangements of

³⁶ George P. Landow in *Hypertext: The Convergence of Contemporary Critical Theory and Technology*, op.cit., 78.

the original texts. In some cases, a remark by Derrida deserves discussion in many separate contexts, but book technology demands that I use it only once.³⁷

Notice how a mere decade ago, Landow still had to talk in terms of book technology and how, even though he wishes for the contrary, thoughts are produced and distributed in books. Print has been organized according to the rules of singularity. Things can be said only once, in the sense that "book technology demands that I use it only once" and quote within a certain frame where it is custom that one must not repeat parts of texts more than once. It is interesting to note that the same thing happens with film editing. With celluloid images, you cut and edit an image once, with the electronic media, for example in a video-clip, you often repeat the same image as many times as you want to.

Strangely enough, the desire to either change a picture or repeat a film in a different way has made film directors bring out new versions of their movies. These versions are either remakes or new versions called "the director's cut". The so-called remastered or uncut versions of films like Ridley Scott's *Blade Runner*, whose "revised cut" was: "The original cut of the futuristic adventure." The blurb continued: "The story of *Blade Runner* is familiar to countless fans. But few have seen it like this. Because *this* is director Ridley Scott's own vision of his sci-fi classic."

³⁷ Ibid.

In our common copy-cut-and-paste fragmentation of digitized documents, the reappropriation and remix logic of cultural production whether in film or in text documents using word-processing technology other than linear writing, or handwriting and typewriting is nowadays not even an issue anymore and new modified versions even of big screen movies can be edited. Today's undergraduate and graduate students all hand in computer-printed papers. They may still argue using what Landow calls the book structure, but they all know about composing brief texts and making use of what he calls the ability to copy-and-paste, thus not only reading notes or electronic text quotes, which according to him, "encourages one to expend effort knowing that it need not be wasted by the later need to retype or recopy." 38

According to Landow, computer-writing technologies free from a constraining book frame have made things easier when it comes to accumulating notes and quotations for future textual use. These technologies are indeed useful as memory revision notes but they also shape a remixed way of reading and producing cultural objects.

As Jay David Bolter wrote in 1991, a text caught in a book frame is not sufficient because a text is always trying to connect to other documents, asking to interact, as seen in the need for footnotes. Bolter even speaks of a conflict situation for the enframed text:

38 Ibid.

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There is a conflict between the printed volume as a frame and the text that is enframed. The frame is not adequate to contain and delimit the text, which is constantly threatening to spill out of its container.³⁹

To elaborate on this passage in Writing Space, The Computer, Hypertext, and the History of Writing, Bolter also wrote that electronic text should be seen as a network and not as a number of pages that have been stuck together in a linear manner. For Bolter, the computer fits in the technology of writing and for him, a definition of what he named "electronic text" would be:

[A] weaving together of elements treated symbolically. (...) Hypermedia simply extends the principles of electronic writing into the domain of sound and image. (...) No one writer or reader has substantial control, no one has substantial responsibility (...) the reader of an electronic text is made aware of the author's simultaneous presence in and absence from the text, because the reader is constantly confronting structural choices established by the author. (...) Electronic text is the first text in which the elements of meaning, of structure, and of visual display are fundamentally unstable (...) restlessness is inherent. (...)

Here Bolter traces a portrait of the passage from printed text to its electronic format. Bolter speaks of "computer literacy." His starting point is the cultural dynamism produced by electronic texts. It allows textual networking where the reader can choose and most importantly, take responsibility to explore different ways and weave associative connections for texts themselves are unstable and restless. As Ilana Snyder reminded us in her analysis on hypertext seen as a labyrinth, Vannevar Bush and Ted Nelson thought the mind to work by

⁴⁰ Ibid., 27-31.

³⁹ J.D. Bolter, Writing Space, The Computer, Hypertext, and the History of Writing, op.cit., 143.

association: "Like Bush, Nelson thinks the mind works by association: with one item in its grasp, it moves instantly to the next, thus forming an intricate web of trails."

A trail of restless associative relations does not function as well using the printed page for, even though printed text of course can also evoke other texts or ideas, it can never directly refer to them, except by the use of quotation, paraphrasing or footnotes. When documents echo each other in the print format, the links are tediously made. The echo or intertextual call from one document to another has however been one of the main cultural practices, as reading often works through the movement from a document link to another and it is in the movement that meaning occurs:

It is the movement from one configuration to the next that carries much of the meaning of an electronic text. (...) Electronic readers shuttle between two modes of reading, or rather they learn to read in a way that combines verbal and picture reading. Their reading includes activating signs by typing and moving the cursor and then making symbolic sense of the motions that their movements produce. 42

Moving through a document by the use of a document link makes reading less static and allows for greater velocity and faster shifting in the document's composition. Intuitive even passionate dare I say, is the hypertextual reader's path. The electronic reader, as named by Bolter, is thus continually shifting from pictures to textualities to be deciphered. A printed book can, of course, also offer

⁴¹ Ilana Snyder, *Hypertext The Electronic Labyrinth* (Melbourne: University Press, 1996), 25.

both word and image but the difference here is that words which are hyperlinked can turn into images in a way similar to that of a clicked-on image can lead to a written document. This merging of different media can indeed make the reader's head spin.

Beyond its form, the book as storage place or associative networking can be hypertextualized and take part in a constellation of documents within an exploratory research movement. Guided by curiosity and intuition, the reader in her memory search can have her senses magnified through the multiplicity of forms of documentation made accessible hypertextually on the Net. This wide accessibility gives a sense of "being on the move", where reminiscence is moving through souvenirs, just as browsing is going through computer memory files.

Hypertextual links lie at the intersections of texts; they work as relays or binding points of different discourses. Looking for intertexts within a given cultural memory is, of course, always partial and incomplete. A given cultural memory starts off with what could be called the canon of a certain culture. Given the critiques made by postmodernism and recently in cultural studies, we realize that no culture is entirely closed and homogenous. In the discourses of the humanities, cultural memories are not thought of as homogeneous and not as a cultural classical tradition of a number of "masterpieces". The associative nature of memory – concepts travelling through multiplied subjective cultural references –

⁴² J. D. Bolter, Writing Space, The Computer, Hypertext, and the History of Writing, op.cit., 71.

are bound to fragment the history of ideas. Brought up in cultural conventions, we still need tales to be told but one of these stories is really about what we need to know about the diversity of stories.

Reading stories in computer texts implies looking through the zapping mode and being at a critical distance. According to Bolter, we live in a free levelling network culture, with no hierarchy, where the text changes to suit the reader and create fragmentation. Everyone has the freedom of his own literacy; there is not just one definition. Every gleaner chooses his own path. "Our whole society is taking on the provisional character of a hypertext. It is rewriting itself for each individual member." Print no longer defines the "organization and presentation of knowledge" or even the nature of knowledge itself. Electronic texts, shaped by the reader-gleaner will continue to replace single-voiced and unified print texts and thus through diversity struggle against content homogeneity.

Having access to documentation through hypertextual practices is not about homogeneity or just one way of seeing things, but rather about cultural diversity and the struggles to create different media links and other interpretations in order to protest against canonical points of view. Hypertexts are not closed. Instead they work through connectivity and openness without claiming to fix or to hold knowledgeable truth. Electronic texts do not "know" but function as knowledge guides. On the other hand, books, because they can be "finished" give the

⁴³ Ibid., 233.

impression of offering the world to the reader as an object of knowledge.⁴⁴ In the contemporary discourses of vanishing cultural diversity and rising cultural homogeneity, hypertextual practices allow for open spaces of thought. With computer mediation, collaborative channels can be opened. This effectively does not close any off or offer the last word on an issue.

In their article Seeing through the Interface: Computers and the Future of Composition, Nancy Kaplan and Stuart Moulthrop ask the following questions: Which objects are produced by hypertexts and hypermedia? Can these productions still be considered as "text"? To which extent can they still be described as being "writing"? Kaplan and Moulthrop rather talk of a "topographic composition" that makes speech visible in space:

We maintain that the representation of ideas through advanced technologies still requires the production of text; it is still *composition*. This type of composition situates language —spoken, written, and iconographic— in a much richer context than the typed or word-processed essay can provide. A course in multimedia composition would still do the work of rhetoric, the critical study of semiotics in action, but it would do so in a broader technological context.

Composition, as we envision its future, involves more than words plus pictures, or video, or three-dimensional programs and the like. As Jay David Bolter argues, writing is and always has been "topographic" _ it is speech made visible and then arranged in a mental space. But until graphic-user interfaces for computers became available, writers could not fully exploit the spatial and visual dimensions of texts. Computer-mediated technologies, like hypertext, allow creators of texts to construct their discourses in multiple dimensions, exploring alternative pathways for traversal and development. This is the feature of hypertext that makes its spatiality most apparent.

⁴⁴ See Christopher J. Keeps' essay "The Disturbing Liveliness of Machines" in *Cyberspace Textuality: Computer Technology & Literary Theory*, Marie-Laure Ryan, ed. (Bloomington and Indianapolis: Indiana University Press, 1999), 168.

Working in a hypertextual writing space, an author employs visual as well as verbal codes to structure and represent knowledge. The arrangements of topics, their order and their relations to one another, can be mapped on a plane, displayed as a hierarchical tree, or represented in some other scheme.⁴⁵

Here we are reminded that language is not adequate when thinking a new or especially a different way of looking at electronic writing. Moulthrop and Kaplan are necessarily still caught in the old way of saying and explaining. Consequently, their attempt at describing this "new" which is taking place requires using words such as: "much richer", "broader", "more than ... plus" and actually highlights the difficulty of making such descriptions. The reader has the impression that the authors were caught between a way of seeing and talking about things that would demand a new language.

Moulthrop and Kaplan still see a sense of the rhetoric, a certain topography and the representation of knowledge in multimedia objects created with the use of computer technologies. In the tradition of the five techniques of rhetoric – *inventio*, *dispositio*, *elocutio*, *memoria*, *pronuntiatio* – they place "composition" in an "arranged mental space" without criticizing the notion of representation of memory. At the same time, they emphasize the importance of the spatial and visual when it comes to their instrumental approach to hypertext, as seen in the citation above: "an author employs visual as well as verbal codes to structure and represent knowledge."

⁴⁵Stuart Moulthrop and Nancy Kaplan. "Seeing through the Interface: Computers and the Future of Composition", in *The Digital Word: Text-Based Computing in the Humanities*, George P. Landow and Paul Delany, eds (Cambridge, MA: MIT Press, 1993), 264-265

The now classic book by Frances Yates, *The Art of Memory* comes to mind here. In it, Yates argues that there is a distinction to be made between a natural memory and an artificial memory:

The natural memory is that which is engrafted in our minds, born simultaneously with thought. The artificial memory is a memory strengthened or confirmed by training. A good natural memory can be improved by this discipline and persons less well endowed can have their weak memories improved by the art. 46

Artificial memory is what rhetoric deals with and what is of interest to us here. The ancient art of memory consisted in conceiving of memory as a "series of loci or places" in which the orator's imagination was able to move around in order to construct a story or a memory network that would allow him to recollect things and where from he would be able to get the material for his speech. In other words, ancient artificial memory techniques deal with the concept of placing images, or things, or words in such a way that they can be kept and repeated later on.

Yates describes the so-called art of memory as the faculty to write or inscribe things to be remembered within one's own mind; in other words, the mind becomes a storage place where one has the ability to *network* things that are to be recalled later on:

⁴⁶ Frances A. Yates, *The Art of Memory* (Chicago: University of Chicago Press, 1966), 5.

The art of memory is like an inner writing. Those who know the letters of the alphabet can write down what is dictated to them and read out what they have written. Likewise those who have learned mnemonics can set in places what they have heard and deliver it from memory, 'For the places are very much like wax tablets or papyrus, the images like the letters, the arrangement and disposition of the images like the script, and the delivery is like the reading.' If we wish to remember much material we must equip ourselves with a large number of places. It is essential that the places should form a series and must be remembered in their order, so that we can start from any *locus* in the series and move either backwards or forwards from it.⁴⁷

It is apparent that there is a similarity between the description of the ancient memory "theatre" and the construction of a hypertext, as well as between the discourse on the art of memory and the computer memory storage capacities.

More than not hypertext remains too often perceived as a tool or device made for linking different documents to make up a composition and not often enough as a practice, or a way that permits writing upon writing. The perception is that in hypertext, margins are present in the document. In the borders the reader can leave her comments as food for thought for any following reader. Scholars are seen as collaborative authors of a continuing textbook where students can review comments and writings.⁴⁸

So when one reads or ventures within a hypertext configuration to seek out a specific text or reference, text is continuously fragmented and reading becomes intuitive. The reader chooses to look for a specific fragment and to interrupt the reading flow, thus emphasizing the fact that this choice is not the result of a logical

⁴⁷ Ibid., 6-7.

decision, but rather the result of an associative and absorbing process. There exists a difference between the hypertext practice that repeats the "art of memory" and hypertext seen as a tool for writing in the margins.

Through Absorbing Practices

Hypertexts are samples that recall the workings of video-clips even if the two practices do not allow the same kind of interactivity. The short sequences which compose video-clips are actually absorbing scattered images which are themselves loaded with references and many marks of recognition. The well-known music video-clips have expanded within the landscape of media culture to the point that they even have their own dedicated networks. The most well-known is MTV. This kind of music television channel where the viewer is bombarded with fragmentary music and image clippings has become omnipresent. Whether they be actual music clips or commercial clips interrupted by short announcements made by the now commonly called VJ's –visual– instead of the DJ's –disk– jockeys who present recorded music sounds and, unlike a video-jockey, do not announce images. Just as video-clips absorb the reader in fragmentary images, hypertexts mix and 'rap' texts, sounds and images on a repetitive rhythm and on a heterogeneous musical plot (excerpts of disks, sound-effects by manipulation of vinyl records.)

⁴⁸ Richard A. Lanham, *The Electronic Word, Democracy, Technology and the Arts* (University of Chicago Press, 1993), 212.

In 1992, amidst the proliferation of the overwhelming presence of visual and oral practices, Guattari presented hypertext as being a new aesthetic practice. For Guattari, we must return to a form of orality but not the spoken in opposition with the written word. Interestingly, to explain hypertext, he gives jazz and rap as examples of such spoken/written new aesthetical practices. Hip-hop and rap cultural practices in particular, in the era of "techno-nomads", as would say Guattari, we mix and recycle fragments of music as in the transfer through a membrane through which we are pierced and influenced. In today's popular music, contaminations of music by other music fragments are of course numerous. For example, hip-hop music is a cultural practice that absorbs its listener in fragments of memory, for it often uses already existing lyrics and pieces of music and thus reminds us of older songs or samples of music, launching the listener/viewer down memory lane. If, of course, she recognizes the recycled sample or if she is left wondering, where have I heard this song before? She will experience a déjà-vu moment.

The apparition of what he called centres of complexity and of multiple semantic fields made Guattari write in his last book *Chaosmose* that we are now confronted with a new aesthetic practice. The practice of hypertext prevents us from being kept in a frame or in a closed territorialization that would prevent creativeness and art.⁴⁹

⁴⁹ Félix Guattari, *Chaosmose* (Paris: Éditions Galilée, 1992), 181.

Aesthetics according to Guattari, is the production of oneself as subject. Here, aesthetics is seen as *poesies*, in the sense of a practice that functions like a crossroad between the actualization of finished configurations and updating processes. ⁵⁰ He pleads for pluridisciplinarity, for the invention of new reference universes as well as the opening to multiplicity:

Je est un autre, une multiplicité d'autres, incarnés au croisement de composantes d'énonciations partielles débordant de toutes parts l'identité individuée et le corps organisé. Le curseur de la chaosmose ne cesse d'osciller entre ces divers foyers énonciatifs, non pour les totaliser, les synthétiser dans un moi transcendant, mais pour en faire, malgré tout, un monde. 51

For Guattari, this is more a question of the aesthetics of recycling, because for him it is necessary to work on an aesthetic of what he calls "transversality", or of going through, or even an experience of feeling absorbed. Similarly, speaking about James Joyce and the open work of art, Umberto Eco referred to the multiple meanings, chaotic character, polyvalence, and the multiple senses of this *chaosmose* written in all languages. The aesthetics of recycling are concerned with observing how cultural objects are often recuperated, even rehabilitated and transformed in a new process of cultural production. In the process of recycling, a sometimes earlier known but now forgotten object undergoes a process of transformation and can enter multiple new networks.

⁵⁰ Ibid., 161.

⁵¹ Ibid., 117.

In Guattari's *Chaosmose*, hypertext is precisely the new aesthetic practice that he describes as the "nouvelle écriture cognitive et sensitive éloigné de l'ancienne linéarité scripturale" or, in other words, the new cognitive and sensory writing distant from the old scriptural linearity. He refers to Pierre Lévy's work, *Les Technologies de l'intelligence*, when mentioning that thoughts mediated through computers are mutant, that they come from other and from several universes of reference: "Les formes de pensée assistées par ordinateur sont mutantes, relèvent d'autres musiques, d'autres univers de référence." 52

For Guattari, such a *traverse* and opening statement should lead to eliminating the *ontological iron curtain* which according to Pierre Lévy has been established between mind and matter by philosophical tradition. It is necessary to make *traverse-absorbing* links that present themselves in the *autopoeisis* hypertext.⁵³ Pierre Lévy speaks of a cognitive ecology:

A l'opposé de certains courants des sciences humaines qui ont longtemps hypostasié des "structures" mystérieusement agissantes aux dépens d'une subjectivité déclarée illusoire ou subordonnée, l'écologie cognitive repère mille formes d'intelligence active au sein d'un collectif cosmopolitique, dynamique, ouvert, parcouru d'individuations auto-organisatrices locales et ponctué de singularités mutantes.⁵⁴

Unlike Baudrillard, Pierre Lévy sees hyperreality and virtuality as non-catastrophic for society. For him, they imply creativity in the most abstract sense.

⁵² Pierre Lévy, Les technologies de l'intelligence, l'avenir de la pensée à l'êre informatique (Paris, Éditions de la Découverte, 1990), 57.

⁵³ Félix Guattari, *Chaosmose*, op. cit., 150-151.

To make a further link in this chain of thought, I consider how Régis Debray talks of cognitive ecology in his book *Croire*, *Voir*, *Faire*. Here resounds what he too calls ecological cognition. This has been present throughout the last thirty years in Western society, where the individual is seen in osmosis with several transversal identities.

Cognitive ecology deals with the notion of *autopoeisis* which is about the individual's capacity of auto-reproduction in a world seen as an ecosystem offering permanent resistance to circular repetitions and allowing for a constant renewal of aesthetic frames. Ecological values concerning the way of perceiving the individual may seem vague but deal with permanent changes and the increasing nomadic multicultural individual confronted more and more with diverse cultural practices from different worlds.

According to these ecological analyses, the new hypertext aesthetic paradigm of the creation and the composition of mutant perceptions and affects has become the paradigm of all possible forms of liberation, making obsolete the ancient scientific paradigms to which historical materialism or Freudianism referred.

For Guattari, it is only late in Western history that art has been seen as a specific activity for the practices of dance, music and signs of plastic arts or marks on the human body in archaic societies were mixed with ritual activities and religious

⁵⁴ Pierre Lévy, Les technologies de l'intelligence, l'avenir de la pensée à l'ère informatique, op. cit.,

manifestations. For Guattari, the individual was previously situated at the crossroads of many vectors of partial subjectivities.⁵⁵

Just as Mallarmé's *Un Coup de dés* came to revolutionize textual aesthetics, the new aesthetic hypertext paradigm has ethical-political implications for once we speak of creation, we talk of responsibility. Indeed, Guattari describes the new aesthetic paradigm of hypertext as follows: "Le nouveau paradigme esthétique processuel hyper-texte machinique a des implications éthico-politiques parce que parler de création c'est parler de responsabilité." ⁵⁶

In order to go beyond ancient rigid ideological frames, one must strive for a decentralisation of media. For example, when a subject is debated there are a plurality of viewpoints, given the proliferation of experiences and media, the challenge is to aim for an open hypertextual and *chaosmic* arrangement of utterances. Multimedia and diversity allow for common knowledge to be set up in crosschecks of shared annotations, updates and crossovers. In a hypertext or on the World Wide Web this can be illustrated for example by individuals putting up their own web page on a subject in order to make sure that their point of view is heard by the cyber-gleaner as she searches and moves through the Web.

171

⁵⁶ Ibid. 149.

⁵⁵ Félix Guattari, *Chaosmose*, op. cit., 150-151: "situé au carrefour de nombreux vecteurs de subjectivisation partielle."

"Bouger, ce n'est plus se déplacer d'un point à l'autre de la surface terrestre, mais traverser des univers de problèmes, des mondes vécus, des paysages de sens....des nouveaux nomades..." The project of a digital world would be to acquire knowledge inside a collective memory and to go down knowledge lane collectively with the help of a new form of training.

Deleuze and Guattari describe nomadic dispersions where ideas are mediated through images and through fragmentation. As for the knowledge network put forward in the hypertext mode, this storage of a memory in a fragmented and audio-visual manner gives us a way of thinking of documents as working in interference, but also as a way of preserving our reference points and memories. With the World Wide Web, which networks a distributed hypertext system, it is interesting to observe how we may preserve a cultural heritage through Netbrowsing, or form a 'cultural memory map on the Net'. As a reader, you can use the Web as follows. First, if your personal computer allows you Internet access, you have access to a piece of software called a browser that displays these documents that you can read and glean. Links are highlighted often in the colour blue or underlined; if you click on them, the linked document appears. Second, if that document is on another machine, your machine makes the link and allows the transfer with the other machine, using a completely absorbing communication protocol that you do not see.

⁵⁷ Pierre Lévy, L'Intelligence collective, pour une anthropologie du cyberespace (Paris, Éditions de

Quotation, reappropriation, and pastiche or recycling culture through Netbrowsing has resulted in the absorbing and blending remix practice of cultural production. 'Electronic readers' can download documents onto their computer's memory in order to keep them; cut them, copy them, fragment them, modify them, and later on, paste the new altered works online and send them into circulation.

Through Gleaning Practices

As the editors of *Waste Site Stories*, the Recycling of Memory⁵⁸ express their concerns for waste of memory traces, they point out that the figure of the gleaner or the act of "gleaning" by "filmmaker [Agnès Varda⁵⁹] who gathers souvenirs, impressions, bits and pieces of lives, of her life, for stories." Gleaning might be the best way to describe how it is to work with fragments. In emphasizing the verb "gleaning", Brian Neville and Johanne Villeneuve even add the idea of "combing through images" as well as "hypertextual arrays of information, or fragments of architectural discourse."

Gleaning – as in clicking from one item to another – is indeed an appropriate word for describing hypertext practices. While picking up a series of cultural fragments such as pieces of texts, or bits of music or images, the hypertext reader

⁵⁸ Brian Neville and Johanne Villeneuve, op. cit., 21, footnote 8.

la Découverte, 1994), 10.

Agnès Varda, Les glaneurs et la glaneuse, Ciné Tamaris, 2000. In this documentary, Varda wanders the French countryside and green markets of Paris; she studies those who collect things which other people "les glaneurs", have discarded or abandoned, whether out of necessity or activism. They gather and recycle valuable resources which our modern consumer society avoids.

ends up having culled a collection of associated items as if one had gone through a pile of souvenirs and picked a few out to end up by being absorbed into what looks like a story on memory.

Christine Ross who researches contemporary art and electronic arts introduces an innovative notion of absorption, which I found useful in thinking about the practice of hypertext and how it functions through absorption. Ross' analysis on video art proves useful for reconceptualizing the notions of surface and depth. The author interrogates the status of the screen and its dematerialization through digital practices and the experience of the frame and the image. What seems worth recuperating from Ross here is that, just as a video image is not flat and one-dimensional but rather full of depth. Thus, hypertext experienced through a computer screen is full of depth just as a memory which is not flat and one-dimensional. Entering a video screen implies depth and one should not simply judge a screen as superficial in the same way that television is said to be superficial, mediocre, a medium that turns us into 'couch potatoes'. Let us consider the computer screen as a window that gives access to a diversity of worlds if we take the time and have the curiosity to be absorbed.

Despite its seeming superficiality,⁶⁰ an impression created by the simplicity of operation (a 'simple click of the mouse') that activates a hyperlink, hypertext is full of depth precisely because it absorbs its reader-gleaner. Actually, for Ross, we

do not penetrate the image, but it is more as if the image itself lures us and absorbs the attention of our eyes. The electronic image is not about recalling reality as in mimesis but rather about trying to replicate reality and the artist's vision of reality.

Des images vidéos qui, bien qu'elles relevent toujours d'une certaine *mimesis*, détournent et font dériver la promesse de l'image de transmettre et de faire passer la vision de l'artiste.⁶¹

As a painting is observed on a canvas a hypertext is seen on a screen. There it is gleaned and accessed. The hypertextualized image or text is even triggered by activating the cursor seen on the window. This occurs as if the digital cursor resembled a runway from which one can jet through a text. Rather like Lewis Carroll's *Alice*, the reader is absorbed by the screen and enters into the depths of this looking glass. The reader gleaning a hypertext creates links through the use of computer media capable of mixing the usual media of text from books, film clips, paintings, photographs or musical scores not in order to refer to a representation or a reality but to have access to a memory heritage which is not necessarily coherent.

In her analysis on video images, Ross connects with the way a video absorbs depth and the way in which the idea of linking is ruptured through the effect of image fragmentation. For her, Fredric Jameson in his analysis on postmodernity misses the point when he believes the collapse of dualistic thought and the loss of

⁶⁰ See Christine Ross in *Images de surface, l'art video reconsidéré* (Montréal, Éditions Artextes, 1996), where she distinguishes the idea of the surface.

meaning and depth in video. Ross does not believe that surface and depth should be opposed. By analogy, Ross' criticism of Jameson is also addressed to the whole modern tradition based on binary oppositions. She considers Jameson as an analyst who watches the surface from afar, who proposes to stand outside and to watch from a distance.

Standing back in order to achieve knowledge is a founding idea of modernity, were the idea is to obtain a certain perspective or distance, as well as an inscription system in order to be able to have a profound thought. To this, Ross objects that a theorist who observes that which she wishes to describe from a distance, refuses to be absorbed by the image and therefore can only see the reflection as a loss and not as a renewal. For Ross, the image surface on the screen and absorption into its depths are certainly practices that go together.

The same holds true for reading a hypertext document on a computer screen. To wit, if gleaners do not click, they will not "participate". By refusing to enter the image on the screen, by wanting to keep a 'safe' distance, the gleaner cannot make a link and thus cannot follow up on a search for knowledge. Entering the screen forces her to let go of the speculative attitude of observing from a distance. One must enter and participate, hence new technologies actually enable us to tap directly into memory.

⁶¹ Christine Ross, Ibid., Introduction.

The screen's surface absorbs its reader and even if browsing or gleaning may seem to be a point-and-shoot cursor placement on a word, phrase or image or just a 'click, click' movement, browsing indeed demands concentration (and immersion, as will be seen for Marie-Laure Ryan) and participation. Landow proposes to see hypertext linking as speeding up the connections made and allowing nonsequential reading and thinking. 63

The notion of absorption and the implications of a surface that does not eliminate depth allows for associations to be made and for creative reading or research to be done.

Related to this point on being absorbed by one's environment, there is a beautiful passage in *Vendredi ou les limbes du Pacifique* by Michel Tournier. This novel is the retelling or remake of Robinson Crusoe. It is a variation on a traditional theme where Robinson immersed in nature learns from the mulatto named Friday that there are, after all, better things in life than civilization and that there are other ways than the traditional ways of looking at things from a critical distance. In Tournier's *Vendredi ou les limbes du Pacifique*, Robinson Crusoe enters a cave at the centre of the island on which he is stranded. In this pitch-dark cave, he tries to feel his way:

62 Christine Ross, Ibid., chapter 1.

Il tenta d'abord tout superficiellement de *s'habituer* à l'obscurité pour pouvoir progresser à tâtons dans les profondeurs de la grotte. Mais il comprit que ce propos était vain et qu'une préparation plus radicale s'imposait. Il fallait dépasser l'alternative lumière-obscurité dans laquelle l'homme est communément enfermé, et accéder au monde des aveugles qui est complet, parfait, certes moins commode à habiter que celui des voyants, mais non pas amputé de toute sa partie lumineuse et plongé dans des ténèbres sinistres, comme l'imaginent ceux qui ont des yeux.⁶⁴

The entire novel is based on the metamorphosis of Robinson Crusoe. In this respect the novel resembles hypertext which is about metamorphosing documents, and non-linearity achieved by looking for information in a pile of documentation fragments as well as being absorbed by the depth and darkness of the cave.

Similarly, Borges' work seems to me to be an explicit association or a link that can be made here, just as a link that could encounter an association in hypertext practice. In order to make the switch to Borges and in assuming the responsibility for the established association here, I see Tournier as a reader of Borges because he too wonders about fragmented and condensed time. In a very Borgesian manner, Tournier has Robinson not only being absorbed by his spatial environment but also by time. This Robinson feels just like the protagonist in *The Circular Ruins*: "He wanted to dream a man; he wanted to dream him in minute entirety and impose him on reality." For Borges, all has already been said. Indeed, his character, Funes, the memory man affirms: "My memory, sir, is like a

⁶⁴ Michel Tournier, *Vendredi ou les limbes du Pacifique* (Paris: Éditions Gallimard, Collection Folio, 1972), 102-103.

⁶⁵ Jorge Luis Borges, "The Circular Ruins" in *Ficciones*, op. cit., 58.

⁶³ George P. Landow, Hypertext: The Convergence of Contemporary Critical Theory and Technology, op. cit., 62.

garbage disposal."66 Tournier shows his subtle recycling of the Borgesian memory archetype by having Robinson conclude that in memory all ends up being the same:

Pour moi désormais, le cycle s'est rétréci au point qu'il se confond avec l'instant. Le mouvement circulaire est devenu si rapide qu'il ne se distingue plus de l'immobilité. On dirait, par suite, que mes journées se sont redressées. Elles ne basculent plus les unes sur les autres. Elles se tiennent debout, verticales, et s'affirment fièrement dans leur valeur intrinsèque. Et comme elles se ressemblent au point qu'elles se superposent exactement dans ma mémoire et qu'il me semble revivre sans cesse la même journée. 67

In memory, the repetition of days becomes one and the same experience.

Everything seems to be compressed in one moment as if one and the same.

Through Immersing Practices

Focused on the non-linearity as well as the multi-linearity of hypertext, Richard A. Lanham analysed in 1993 what he called *The Electronic Word, Democracy, Technology and the Arts.* ⁶⁸ In his definition of hypertext, text has a dimension that traverses texts. This for him gave textuality a third dimension, as Lanham explains:

Hypertext is a nonlinear means of electronic expression in which the textual surface is given a third dimension by embedding further kinds of information beneath the surface. A changing symbol or typeface lets the reader know that a hypertext is concealed beneath that text. And of course there are texts

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⁶⁶ Jorge Luis Borges, "Funes, The Memorious" in Ficciones, op. cit., 112.

⁶⁷ Michel Tournier, Ibid., 219.

⁶⁸ Richard A. Lanham, *The Electronic Word, Democracy, Technology and the Arts* (University of Chicago Press, 1993).

behind those texts. The reader's path through such interreferentiality soon becomes totally nonlinear and, if not totally unpredictable, certainly "chaotic." 69

Here, we see again how electronic media leads one to believe that she is looking beneath a surface to be immersed in a vast network. There are different approaches to hypertext; however they all share the idea that hypertext is both movement and fragmentation. For example, Marie-Laure Ryan concentrated her studies on the notion of immersion in 1999 in what she named *Cyberspace Textuality*. For her, hypertext is the most well-known electronic genre where text is broken into fragments.⁷⁰

Ryan distinguishes temporal, spatial and emotional immersion in hypertext narrative and attempts to determine to which extent hypertext or interactive textuality can retain its ability to tell stories in future cultural practices. She puts forward three different future possibilities. Essentially when abandoning the model of the novel, hypertext could explore: 1) "Self-contained lexias" (such as poems, aphorisms, anecdotes, short narrative episodes or provocative thoughts); or 2) the multimedia capabilities of the new digital technologies (such as a CD-ROM, interactive art and computer games); and 3) experimental interactive text which is still marginal in literature.

69 Ibid., 94.

⁷⁰ See Marie-Laure Ryan, ed. *Cyberspace Textuality, Computer Technology and Literary Theory* (Indiana UP, Bloomington and Indianapolis, 1999), 6.

Because hypertexts are activated through hypertextual links, they function through fragments and within moments of pauses, interferences and discontinuity. For some, fragment linking provides a way of becoming immersed into text. Ryan sees text as an object rather than a process and hypertext as the process stored in a network whose nodes are connected by electronic links. A fragment contains a number of different links, offering the reader a choice of directions to follow. By letting readers have access to a non-linear mode of reading, hypertext facilitates access to information. In her words, "the device provides an efficient searching tool through a database." Furthermore, because hypertext appears physically on a computer device, it is seen as a device and so, considered to be a tool.

Ryan focuses on the selective interactivity of hypertext. In her 2001 study on hypertext and interactivity in literature, she recalls how fragmented text is part of a general definition of what hypertext is thought to be:

[T]hanks to the popularity of the Internet, the idea of hypertext is so widely known these days that its presentation can be limited to a short refresher. In a hypertextual system, text is broken into fragments —"lexias," for George Landow; "textrons" for Espen Aarseth—and stored in a network whose nodes are connected by electronic links. By clicking on a link, usually a highlighted phrase, the reader causes the system to display the contents of a specific node. A fragment typically contains a number of different links, offering the reader a choice of directions to follow. By letting readers determine their own paths of navigation through the database, hypertext promotes what is customarily regarded as a nonlinear mode of reading. The applications of the idea nowadays include the World Wide Web, educational databases, the online help files of computer programs, Ph.D. dissertations and other scholarly

⁷¹ Ibid., 7.

texts, and multimedia works on CD ROM, as well as poetry and literary fiction.⁷²

Here, Ryan acknowledges the inspiration given by the 1997 Espen Aarseth's book on the question of cybertext where he talks of *Ergodic literature*. For Aarseth, hypertext is thinking about a process or a path and about ways, routes and passages when it comes to electronic textuality. He concentrates on the book and the labyrinth and sees hypertext as a work in movement. Ergodic textuality produces different sequences every time it is covered or skimmed through.

Through Replacement Practices

Hypertexts work through hyperlinks that can connect blocks or fragments of texts and cross different types of media to make them blend together. Jay David Bolter and Richard Grusin mention Michael Joyce, for whom "[r]eplacement is the essence of hypertext." For Bolter and Grusin, visual multiplicity

[j]uxtaposes media and replaces one medium with another as it combines music with graphics and animations reminiscent of comic books and other popular forms. As Michael Joyce reminds us, replacement is the essence of hypertext, and in a sense the whole World Wide Web is an exercise in replacement.⁷⁴

Actually, their footnote in their 1996 text which first introduced their remediation concept reported "as [Michael] Joyce puts it: text reproduces itself; hypertext

¹³ Jay David Bolter and Richard Grusin, "Remediation" in Configurations 4-3 (1996), 335-337.

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Marie-Laure Ryan, Narrative as Virtual Reality, Immersion and Interactivity in Literature and Electronic Media (Johns Hopkins UP, Baltimore and London, 2001), 206.

replaces itself." In this footnote, Grusin and Bolter add the comment that Joyce had said this not in a text, but in a "private communication", possibly to stress that a regular footnote quote could not be given here. They still feel obliged, however, to credit the observation. From Grusin and Bolter, we learn that the idea of replacement came from Michael Joyce but was not recorded in the traditional way. This shows how one can in fact, refer to the author's words as though they were heard through the grapevine. Bolter and Grusin picked up their quote a second time in their *Remediation* book, which illustrates how chains of thoughts as links are always picking up on repeated threads:

When the user clicks on an underlined phrase or an iconic "anchor" on a web page, a link is activated that calls up another page. The new material usually appears in the original window and erases the previous text or graphic, although the action of clicking may instead create a separate frame within the same window or a new window laid over the first. The new page wins our attention through the erasure (interpenetration), tiling (juxtaposition), or overlapping (multiplication) of the previous page. Beyond the World Wide Web, replacement is the operative strategy of the whole windowed style. In using the standard computer desktop, we pull down menus, click on icons, and drag scroll bars, all of which are devices for replacing the current visual space with another.

Replacement is at its most radical when the new space is of a different medium—for example, when the user clicks on an underlined phrase in a web page and a graphic appears. Hypermedia CD-ROMs and windowed applications replace one medium with another all the time, confronting the user with the problem of multiple representation and challenging her to consider why one medium might offer a more or less appropriate representation than another. In doing so, they are performing what we would characterize as acts of "remediation." 75

74 Ibid.

⁷⁵ Jay David Bolter and Richard Grusin again but now, in their book entitled *Remediation*, *Understanding New Media* (Cambridge, Massachusetts: MIT Press, 1998), 44.

The hypertext gleaner overwrites by clicking on chosen links. For the media critics Bolter and Grusin, observing computer games, digital photography, virtual reality, film and television has made them refute the idea that digital technologies must be considered separately from earlier media for they argue that digital media in general remediate other media. They call the representation of one medium in another *remediation*. In other words, early photography remediated painting, as film remediated theatre and television, film. For them, remediation is either transparent when a particular medium goes about ignoring the presence of the medium itself, or remediation works as *hypermediacy* when it is self-absorbed and fascinated by the medium itself. For instance, hypertext remediation cannot let go of the cultural tradition of the page to which it is still trying to imitate or cling.

Baudrillard understands through the changes brought by virtuality, the loss of the real in contemporary hyperreal society. Hypermediacy just as hyperreality, explained by Baudrillard and Eco, happens when a succession of dislocations connecting a series of imitations to an original becomes so replaced that the reality of the original is eclipsed as a referent.

As an example, Bolter and Grusin refer to Hollywood films based on classic novels by authors such as Jane Austen produced during the last decade:

[These films] are historically accurate in costume and setting and very faithful to the original novels. Yet they do not contain any overt reference to the novels on which they are based; they certainly do not acknowledge that they are adaptations.... The content has been borrowed, but the medium has

not been appropriated or quoted.76

Made of texts, images, film sequences or sound, hyperlinks allow references to merge. One can imagine hypertext presentations of documents (or the equivalent of texts, books, films, images, sounds) in which the reader can call up all the reviews and comments on a particular document, which would then inevitably exist as part of a complex dialogue. Hypertexts, which link documents, destroy the physical isolation of a document and let cultural works of art blend together and replace each other constantly.

Nowadays hypertexts are primarily associated with the Internet and World Wide Web, because as a technology, hypertexts were developed by computer scientists to allow easy access to documents. Hypertexts work through document linking; through associations of ideas they often go off a tangent and can, like travelling concepts, move across cultures and disciplines and reveal the interrelations of cultural documents.

If hypertext situates texts in a field of other texts, can any individual work that has been addressed by another still speak so forcefully? One can imagine hypertext presentations of books (or the equivalent) in which the reader can call up all the reviews and comments on that book, which would then inevitably exist as part of a complex dialogue rather than as the embodiment of a voice or thought that speaks unceasingly. Hypertext, which links one block of text to myriad others, destroys that physical isolation of text, just as it also destroys the attitudes created by that isolation. [...]

It destroys one of the most basic characteristics of the printed text –its separation and its univocality. Whenever one places a text within a network of other texts, one forces it to exist as part of a complex dialogue. Hypertext

⁷⁶ Ibid.

linking, which tends to change the roles of author and reader, also changes the limits of the individual text.[...]

Hypertext blurs the distinction between what is "inside" and what is "outside" a text.⁷⁷

In both scholarly editing and scholarly prose divisions of text partake of fixed hierarchies of status and power. The smaller size type that presents footnote and endnote text, like the placement of that text away from the normal center of the reader's attention, makes clear that such language is subsidiary, dependent less important.[...]

One experiences hypertext annotation of a text very differently. In the first place, electronic linking immediately destroys the simple binary opposition of text and note that founds the status relations that inhabit the printed book.⁷⁸

Following in the footsteps of postmodern criticism, hypertext practices condemn the totalizing modern theory of rationalizing knowledge, and are

[I]n favour of multiplicity, plurality, fragmentation, and indeterminacy. In addition, postmodern theory abandons the rational and unified subject postulated by much modern theory in favour of a socially and linguistically decentred and fragmented subject.

Of course, when the postmodern discourse appeared during the 1980's and early 1990's, hypertextuality was not yet an issue since computer practices were not yet as widely accepted as they were at the threshold of the new millennium. However, I would like to argue that hypertext practices were the logical consequence of the contemporary interacting developments and a discourse focussing on multiplicity and fragmentation. This is a discourse that is concerned with following

⁷⁷George P. Landow, Hypertext, The Convergence of Contemporary Critical Theory and Technology, op. cit., 63

 ⁷⁸ Ibid, 65.
 ⁷⁹ Stevens Best and Douglas Kellner, *Postmodern Theory: Critical Interrogations* (New York, The Guildford Press, 1991), 4-5.

experiences, relationships, and memory associations that are diverse and numerous.

Studies on interpretation have shown that although there might be an ideal author and ideal reader, these idealized personae have their own idea about what a text is and where it stands; so interpretations are, of course, subjective and no document can truly exist as an entity. Knowing that no reader of a text nor any viewer of an image can be expected to see or understand in exactly the same manner, it is hard to understand how cultural memory can function as a whole.

Different paradigms of different interpreters will leave different traces and should be taken into account. In that case, what does writing do to memory? What can happen to memory within the new technology practices? For example, for Bolter:

Writing is a technology for collective memory, for preserving and passing on human experience. (...) Eventually writing also becomes the preserver and extender of other technologies, as an advanced culture develops a technical literature. 80

As a result, the daily practice of new technologies for the computer literate becomes part of common human experiences for passing on messages, sharing documents or simply looking up some information. On the screen, windows are like palimpsests on which one can constantly rewrite and replace new links by substituting new pages through text navigation and instant searching allows the

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⁸⁰ J. D. Bolter, Writing Space, The Computer, Hypertext, and the History of Writing, op.cit., 33.

question of memory to remain open. When memory is allowed to occur as the reader enters the screen, it is as if one walked into a city looking for moments of recognition in the style of Walter Benjamin's *flâneur* or dweller.

For example, In Salman Rushdie's 2001 Fury, the main character walks around in New York City looking at posters advertising the latest film featuring pop star Jennifer Lopez. He reflects upon the fact that this movie The Cell sounds like a remake of Fantastic Voyage, featuring Raquel Welch but the question is whether it really matters that the latest movie could be a remake, for nobody remembers the original anyway:

There were posters everywhere for *The Cell*, the new Jennifer Lopez movie. In it, Lopez was miniaturized and injected into the brain of a serial killer. It sounded like a remake of Fantastic Voyage, starring Raquel Welch, but so what? Nobody remembered the original. Everything's a copy, an echo of the past, thought Professor Solanka. A song for Jennifer: *We're living in a retro world and I am a retrograde girl*.⁸¹

Intertextuality goes beyond the presence of a certain text in another text. Neither the quote nor the citation is the only visible sign of intertextuality. Documents referring to each other are a sign of memory practices connecting to cultural practices. But if intertextuality goes beyond literal quoting, can one propose that as soon as textual documents show any resemblance to one another, can one speak of intertextuality being at work? Traces of texts within other texts indicate

⁸¹ Salman Rushdie, Furv (New York: Random House, 2001), 142.

intertextuality but this is when one speaks of closed texts, texts that work by using linking.

Julia Kristeva introduced the notion of intertextuality at the end of the 60's, to indicate that every text is dependent on another text. For her, intertextuality is a question of transposition of one text into another. This is often done through explicit transcription and copying of texts within other texts or assembling documents through collage practices. Hence, intertextuality indicates that literature is part of a whole tradition, of a whole memory, and that no document can really be considered as being isolated. The idea of all literary production being part of a whole broadened out into a great number of other interrogations. For if no text, could be thought of as having been produced alone, how could one still speak of a single piece of art? Post-structuralist theorists such as Roland Barthes or Michel Foucault are known within literary studies for announcing the death of the author and for speaking of the different layers that are at work within artistic works. Let us stress the fact here that intertextuality erases the medium in order to privilege the abstract object that is a text. Intertextuality involves contextualizing texts in, for example, what is the given literary canon of a national literature.

Readers understand given works of literature by contextualizing them within the intertextual field(s) with which they are familiar. In his brief study of Kafka's precursors, Borges founds a reading of Kafka on the basis of an intertext that Borges, not Kafka, has inscribed. 82

⁸² Jerry Varsava, "Calvino's Borgesian Odysseys", in *Borges and His Successors, The Borgesian Impact on Literature and the Arts*, Edna Aizenberg, ed. (University of Missouri Press, Columbia, 1990), 187.

As we shall see, hypertext as the open work of intertextuality and document repetition allows for a pedagogical practice where memory arises through an endless process of repetitions and associations. Hypertext begins its search as soon as one clicks on a hyperlink and ends when the gleaner either stops activating the hyperlinks or closes down the system. Hypertext is not about a given canon anymore.

Once interrupted but never really closed, a hypertext is not like a book with a bookmark. You can only interrupt or get out of your immersion for it becomes difficult to find the page again⁸³ or rather go back to the last link. Even if the reader has marked up the link on his computer, it will remain merely a point of entrance, for one can never retravel the exact same electronic path or stroll for hypertexts which function through associative links that can go on endlessly. Unlike a printed book, a hypertext cannot end with a last page marked "The End"; instead, as is often the case in the movie theatre, it should read "To be continued."

For this reason, hypertext has been criticized as misleading and threatening the direction of historical thought. Hypertext is seen, especially by scholars in the humanities, as abrupt, superficial and interrupting a train of thought. Fearing that it grows indifferent to time and to a culture as well as to a historical tradition that valued memory above all things.

⁸³ As in Jorge Luis Borges' *The Book of Sand*. [For my analysis see Section III].

Any ending will be marked by the punctuality of interruption. (Thus the purest paradigm of a hypertext ending: you can just stop reading, decide that you've had enough, get up from the computer, and walk away.) But you cannot come to a definitive ending within the docuverse. [...]

Readings of hypertexts are thus always subject to misadventure: the possibility that you might end up at a different destination from the one you intended overdetermines every turn you take. The presumed directionality of a link –instrument, signpost, and phylactery sign and scholarship– is always supplemented by a link's potential for misdirection; the chance encounters of reading always may redefine the route you thought you were following.⁸⁴

Indeed there is no ending in a hypertext so it may seem to lead to getting lost. However, cyber-straying is not all bad for it forces the reader to be active and to delve into the available documents. If one follows the above description of hypertext, it could be perceived as a misadventure where reading can only lead to a wrong direction.

Yet this perception of misadventure is apparent only because a hypertext's reader-creator is precisely the agent who can bring about a possible network and be the one who shows the way to thought creativity. The hypertext reader becomes the mediator or pedagogue of a memory, as moving through the written archives of memory also implicitly teaches a practice of memory.

By organizing a hypertextual network according to an archive as much intertextual as hypertextual, our lost even unknown memory could be recognizable. Hypertext provides educational and global means of access to

memory, in the sense that globalization is seen as an ideology which recycles a commercial principle: reach the largest number of people as far and wide as possible. But as long as those who are supposed to transmit knowledge do not involve themselves in this new transmission of memory, the question arises: does this recycling of memory not create a situation of information and a re-information but also of a disinformation and over-information?

Before any answer, I ask again what is hyper-text? (Similar to the question what is a text?) Let me try therefore to tackle its etymology. First, there is the Greek *hyper*-, a prefix meaning over, above, or excessive, used in such terms as *hyperbole* (exaggeration in describing something). As an adjective, *hyper* is slang for "keyed up" or "stressed." Again the word expresses exaggeration. So, a hypertext would be an excessive text, a mega- or super-text. While increasing, a text changes; it transfers into a text with drawers, doors or files, each one a link giving access to another document of the immense memory library that the Internet already is. Hypertext is a text that extends to point or refer to other texts and even include them. Note that in science, the prefix hyper- is something that exists in a space of four or more dimensions, such as a *hyperplane*.

If hypertext is the organization of information units into connected associations, like memory making associations, such an association is called a hyperlink or hypertext link and a highlighted word to click on just as one would dwell on a

⁸⁴ Terence Harpold, "Conclusions" 189-222 in Hyper/Text/Theory, George P. Landow, ed. (Johns

souvenir or faded photograph that brings back reflections from any point in memory's databank.

ICONS

Deleuze and Guattari's Rhizome

Rhizomatic Practices

Because a hypertext must be entered somewhere, the starting point is the hyperlink on which a reader chooses to click. I will clarify or nuance the term hypertext further by providing different definitions and by retracing hypertextual practices of memory. For I believe that hypertext is not only a term that defines a particular type of electronic text, but also a way of thinking memory paths and linkages. In section III, we will see how in the computer and media age, the Argentinean author Jorge Luis Borges may be considered the precursor or herald of hypertext wanderings. Although it seems that hypertext can be explained in terms of fragmentation in the context of an emerging new textual expression, what follows is a review of how the term has evolved in the last decade. As mentioned before, this study will work mainly from one proliferating concept: the rhizome.

In Gregory Ulmer's 1989 literary theory and media studies book, *Teletheory*, the rhizome is seen as an image helping us to experience a new kind of memory which keeps mnemotechnical tradition for the needs of electronic memory. Ulmer links the rhizome and memory to elaborate a new idea of memory as a pedagogical "construction":

In considering the rhizome, my purpose is to focus on the place of memory as a pedagogical construction and strategy. [...] The rhizome is offered as an image of memory in contrast to tree diagrams used to organize conceptual structure in the apparatus of print. [...] What the tree diagram was to the book, the rhizome map is to electronics—a model for a new order of memory, whose principles include "connection" "heterogeneity" "multiplicity" "rupture" The relationship of the reader to the text, of the text to the world, is rhizomatic: together they form a rhizome, which is not a relationship of representation, resemblance, reference.

Of course a rhizome is an underground root system that attaches itself to other root systems and scatters targets in all directions. Out in the air, there is nothing arborescent about it. Unlike an "arbre de comaissance," there are not millions of roots growing into an orderly tree, but a million little underground proliferations. The simultaneous presence of heterogeneous space means that there is no hierarchized distance between one element and another; they are in the same territory grafting ideas across continents irrespective of national boundaries. The rhizome, like Deleuze and Guattari's book-machine, 86 connects and assembles in movement, without necessarily losing or gaining anything and without giving more importance to one element over another.

Alongside memory, the rhizome has also been identified with hypertextual practices for when moving through a document by the use of links or in browsing

85 Gregory Ulmer, Teletheory, Grammatology in the Age of Video (New York & London, Routledge, 1989), 140-141.

⁸⁶ Gilles Deleuze and Félix Guattari, "Rhizome", in *Mille Plateaux, Capitalisme et schizophrénie* (Paris, Éditions de Minuit, 1980), 9-37. Where they claim: "Le livre en tant qu'agencement, est seulement en connexion avec d'autres agencements. [...] On ne cherchera rien à comprendre dans un livre, on se demandera avec quoi il fonctionne, en connexion de quoi il fait ou non passer des intensités [...] Le livre est une petite machine, une machine abstraite. Quand on écrit, c'est de savoir avec quelle autre machine la machine littéraire peut être branchée pour fonctionner", 10.

the World Wide Web, one finds elements to be linked, in a nascent rhizome. In the Deleuzian concept of *becoming*, when A becomes B, A does not give up being A. It continues to be A, yet it becomes B without transforming itself into B. So when the European scholar becomes "American," she does not cease being European and will not entirely transform into an American. "Deterritorialization" cannot be separated from "reterritorialization." Becoming part of the same simultaneity; within its simultaneous undoing and redoing, is the way in which I will now be asked to look at textuality. ⁸⁷

For Deleuze and Guattari, a plateau is always in the middle, not at the beginning or the end, a continuous, self-vibrating region of intensities whose development avoid any orientation toward a culmination point or external end. As they explain: "We call a 'plateau' any multiplicity connected to other multiplicities by superficial underground stems in such a way as to form or extend a rhizome."

On the World Wide Web, we are in between texts, in search of links that, because of the addresses of their URLs, gleaners *believe* to be travelling from one continent to another, between Europe, North America and other points on the globe. The linking and browsing within hypertext forms a "textual corpus," a part of knowledge sharing. There is a corporeal becoming of hypertext, like any

⁸⁷ When I decided to continue my literary studies in North America, I was asked to let go of colonialist thinking—or hierarchical ways of thinking—in which I had presumably been raised in Europe. I now had to "deterritorialize" myself, to become more "pluridisciplinary" and learn to work in a rhizomatic sense. Thinking about links through Deleuze leads me to ask how the "new book-machine" worked, and just as I was rethinking my knowledge base, the Internet opened before me, laying out a hypertextual mode to be read, discovered, and explored.

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biological organism, "un devenir-animal" or "devenir-matière" of a document-machine. We are grafting a common text-machine in which origins may begin to become scattered or blurred. Beyond North America or Europe, I link up with an Australian scholar, C.-F. Kon, and quote a text found on Internet:

The Net is a hybrid of several earlier technologies, including the typewriter, the telegraph, telephone, cable links, satellite-broadcasting, radio, print technologies and computing. [...] At the same time, the Net could not have "become" if there had not been ruptures between distinct fields of study — telecommunications, computing, psychology, military defence, and so on. 89

This hybridized knowledge that we are now linking together, these transcontinental ideas that are being grafted, attempt to do away with all classification, plunging us into a common non-hierarchical database. Here the rhizome concept is germane to explaining this change.

Résumons les caractères principaux d'un rhizome: à la différence des arbres ou de leurs racines, le rhizome connecte un point quelconque avec un autre point quelconque, et chacun de ses traits ne renvoie pas nécessairement à des traits de même nature, il met en jeu des régimes de signes très différents et même des états de non-signes. 90

For Deleuze and Guattari, the rhizome is a concept that allows us to express connections between different modes of expression. We recognize an explanation within the image of the rhizome as the digital technologies allow us to switch indifferently from text (.doc word documents) to images (.jpg image documents)

⁸⁸ Deleuze and Guattari, Rhizome, op. cit., 21-22.

See online: Towards a Holistic Ontology by Chuen-Ferng Kon, (Murdoch University, Perth, 1997) @ http://wwwmcc.murdoch.edu.au/ReadingRoom/VID/jfk/thesis/ntitles.htm

⁹⁰ Gilles Deleuze and Félix Guattari in *Rhizome*, op. cit., 31.

and sound (.mp3 digital sound documents) as well as film (DVD) and the now widely growing sms or short text mobile phone world popularity as well as photos, videos and video games sent by phone.

Rhizomatic "reading leaps" –those leaps between and within texts– are one of the figures often used to explain hypertext. The success and reappropriation of the "rhizome" in hypertext thought and new writing technologies, appear in the work of hypertext theorists, such as Stuart Moulthrop (Baltimore), George P. Landow (Brown), Janet Murray (MIT) in America, as well as Ilana Snyder in Australia (Monash, Australia) or Pierre Lévy in Canada and formerly in Paris.

The mapping of hypertext-thought in terms of a rhizomatic figure spirals back to *The Rhizome* by Deleuze and Guattari. Different authors quote other authors, quoting other authors who in the end quote Deleuze. Looking back over the texts that I have on hypertext, I found that rhizomatic linkage did not explicitly refer to *Mille Plateaux*. In fact the reference was to Stuart Moulthrop for instance, one of the first to mention Deleuze and Guattari's *Rhizome* in English in relation to hypertext. Similarly, I will quote Moulthrop as well, as he is quoted in Landow's major book on hypertext:

We begin on the *Thousand Plateaus*—which is appropriate for a commentary on hypertext and culture, since Deleuze and Guattari's rhizome—book may itself be considered an incunabular hypertext [...] what Deleuze and Guattari

have in mind is a chaotically distributed network (the rhizome) rather than a regular hierarchy of trunk and branches.⁹¹

Ilana Snyder in her book *Hypertext, the Electronic Labyrinth*, which summarizes the theory of hypertext, says that her book is "itself a kind of hypertext created out of the connections I have made between the ideas of key theorists in the area of electronic literacy." She quotes Moulthrop directly in reference to the rhizome:

The coming changes in textuality allow us to create a different kind of linguistic structure, one that corresponds more closely to Deleuze and Guattari's "rhizome", an organic growth that is all adventitious middle, not a deterministic chain of beginnings and ends. ⁹³

Where Moulthrop is remembered for quoting *Mille Plateaux*, Snyder concludes: "[hypertext] is the linguistic realization of Deleuze and Guattari's "rhizomatic form" but in her analysis she has not analyzed the *Rhizome* text itself. Janet Murray in her *Hamlet on the Holodeck*, on the other hand, does refer to both Deleuze and Moulthrop in her analysis of the digital labyrinth; she defines hypertext narrative as being

like a set of index cards that have been scattered on the floor and then connected with multiple segments of tangled twine, they offer no end point and no way out. Their aesthetic vision is often identified with philosopher Gilles Deleuze's "rhizome", a tuber root system in which any point may be connected to any other point. Deleuze used the rhizome root system as a model of connectivity in systems of ideas; critics have applied this notion to

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⁹¹ Stuart Moulthrop, "Rhizomes and Resistance: Hypertext and the dreams of a New Culture", 299-319 in *Hyper/Text/Theory*, George P. Landow, ed., op. cit., 300-301.

⁹² Ilana Snyder, Hypertext The Electronic Labyrinth, op. cit., xiii.

⁹³ Stuart Moulthrop in his article "Evolving Perspectives on Computers and Composition Studies Questions for the 1990s" in *The Politics of Hypertext*, G.E. Hawisher and C.L. Selfe, ed. (Urbana, Illinois: National Council of teachers of English, 1991), 253-271.

⁹⁴ Ilana Snyder, op. cit., 52.

allusive text systems that are not linear like a book but boundaryless and without closure. Stuart Moulthrop, a theorist and electronic fiction writer, states it ... 95

Within hypertextual linkage, I become a scissors-reader ⁹⁶ like Antoine Compagnon's "I'homme aux ciseaux," who, in order to remember his readings, just snips out the essential, with a pair of scissors. In a copy-and-pasting and sampling gesture I become a fragment linker. As if she were using scissors, the reader pinpoints and cuts, copy-and-pastes one link after another, seeking, finding, clicking and storing each clipping on the basis of single words or concepts. This redistributed knowledge network is more of a scattering that allows the differentiation so dear to Deleuze, ⁹⁷ rather than a simple repetition.

The text metamorphosizes, in a biological sense, as it changes with a click, giving way to a new transmission. While passing from one electronic page to another, there is fragmentation in a video-clipping manner. The metaphor of the rhizome embeds a concept of differentiation instead of similarity in a community. For, Deleuze and Guattari explained that even in a group or what they call, in a "becoming-animal," one is always within a pack, in a multiplicity, a community:

Mais nous, nous ne nous intéressons pas aux caractères, nous nous intéressons aux modes d'expansion, de propagation, d'occupation, de contagion, de peuplement. 98

⁹⁵ Janet Murray, *Hamlet on the Holodeck* (Cambridge, Massachusetts: MIT Press, 1997), 132.

⁹⁶ Antoine Compagnon in La Seconde main ou le travail de la citation (Scuil, Paris, 1979), 27.

⁹⁷ Gilles Deleuze, *Différence et Répétition* (PUF, Paris, 1968).

⁹⁸Gilles Deleuze and Félix Guattari, "1730- Devenir-intense, devenir-animal, devenir-imperceptible" in *Mille Plateaux, Capitalisme et schizophrénie* (Paris, Éditions de Minuit, 1980), 292-293.

In either differentiation or community forming, there are influences from several modes and cultural practices. Talking of hypertext being rhizomatic, of its "packing-expansion," is about its propagation and contagion and I would like to concentrate on the aspects of fragmented transmission and non-hierarchical textuality that also characterize hypertext. Hypertextual becoming just as the rhizome does not act according to a hierarchy, or a canonical order, but according to the behaviour of the public using it.

Why Deleuze? One answer: Deleuze, because of the fertility of his biological concept in Mille Plateaux. This creative rhizome concept is essential in the search for information because it allows for autonomy in the "reading material" without having to organize the gleaner in a restrictive way.

Archiving Practices

Another Deleuzian text is *Difference and Repetition*, where we see that with repetition comes difference, and also remembrance. *Difference and Repetition* deals with the question of what I do remember from my readings. I know that one could say that cultural theory has always worked as a question of someone being influenced by someone else and remembering one's own particular and singular reading paths. These influences are taught through a cultural canon that does not leave any room in the student's reading for making her own links. It seems as if

one must read the traditional curriculum. However is this really necessary when one can now have access to the archives? For, if the reference to Deleuze is always mediated through other texts, should we have to go back to Deleuze and necessarily have to read either *Difference and Repetition* or *A Thousand Plateaus*?

For example, in the case of hypertext, the attempt to theorize the practice has only just begun. So while we still know who started the rhizome and who made the link between the concept and hypertext, we are at the beginning of a search where archiving is still possible. Then again, we are already starting to 'think hypertext' on the basis of a single concept, and is the rhizome not already being lost somewhere along the way? While recuperating the rhizome concept of these "thinkers" should we not beware of growing again another archive in a hierarchical mode and thus imposing a canon?

If the gleaner or the reader-browser does not understand the content of what she is reading but is merely organizing it intuitively around criteria based on random rhizomatic 'interests', then the object of research itself becomes a rhizome. It grows in one direction due to interest, then drifts off due to lack of interest, all the time growing in multiplicity because of other interests, yet needing a certain stability and stockpiling of information.

In *Mal d'Archives*⁹⁹ Derrida, discusses the archive and focuses on Sigmund Freud's "death impulse" that makes us repeat. Derrida defines archive as a form of memory control. An archive exists where things begin, where there is consignment and gathering. Archives allow us to trace something that is repeated, and as well as allowing to repeat it again.

Freud is thus re-introduced by Deleuze, in *Difference and Repetition*, and by Derrida, in *Mal d'Archives*. By repetition, he is being archived and recirculated. Knowledge filiation can be seen as comment upon commentary. An archive allows an initial chronological approach for knowledge to be assimilated through reading. But like Mallarmé's *Un Coup de dés*, to which Deleuze refers, ¹⁰⁰ reading is like rolling dice, scattering us into a multiplicity of thoughts. There is a sort of scattering of nomadic concepts, ¹⁰¹ according to Derrida, because concepts are not reliable and create dispersal between archives. It is this Freudian "death impulse" that makes archiving desirable. Through the scattering or nomadism of Freud, the latter's ideas on repetition are taken up again by Deleuze and Derrida, in the same way that Deleuze and Guattari's rhizome is picked up again by hypertext theorists. This kind of archiving and dispersal is not new, so what is different about hypertext linking?

⁹⁹ Jacques Derrida, Mal d'archive (Galilée, Paris, 1995).

¹⁰⁰ Gilles Deleuze, Différence et Répétition, op. cit., 255-256.

¹⁰¹ Jacques Derrida, Mal d'archive, op. cit., 56.

Practices of Repetition or Difference?

Inheritance → repetition→ difference→ repeating the archive

For Derrida, inheritance is important because the material is often repeated and can assume its difference in full. In Plato's academy, the archive is the institution of repetition. Similarly, the existence of an archive makes repetition possible.

But since every repetition is different, ideally every occurrence should be catalogued and archived precisely for its difference. This is where inscription on paper becomes important for the purpose of storage. This is where it becomes necessary to rediscover difference when searching through what has been preserved. In the presence of hypertext, there is a differentiation of links to be brought out and not a repetition. The instability of differences and the permeability of borderlines in the virtual mode of hypertext highlight differences even better.

With this reading practice, the difference-reader or reader-creator seizes what is at stake in the text, once it is hypertextualized, and jumps from one link of the rhizome to another. In *Beyond the Pleasure Principle* and *Remembering, Repeating and Working-Through*, Freud does not see repeating as imitation; instead repeating discloses life or death. Deleuze invokes Freud in order to show

Freud spoke of the analytical work of oppression: "Repetiton occurs under pressure of a compulsion" and "The repressed instinct never ceases to strive for complete satisfaction, which would consist in the repetition of a primary experience of satisfaction" in *Beyond the Pleasure*

how a blockage of the concept occurs. Freud's pleasure principle and death instinct are phenomena of repetition. Difference is understood in the repetition within which it is concealed:

Quand manque la conscience du savoir ou l'élaboration du souvenir, le savoir tel qu'il est en soi n'est plus que la répétition de son objet: il est joué, c'est-àdire répété, mis en acte au lieu d'être connu. La répétition apparaît ici comme l'inconscient du libre concept, du savoir ou du souvenir, l'inconscient de la représentation. Il revient à Freud d'avoir assigné la raison naturelle d'un tel blocage: le refoulement, la résistance, qui fait de la répétition même une véritable «contrainte», une «compulsion.» 103

Deleuze repeats Freud in order to show how a blockage or forgetting occurs in the process of knowing and remembering. He therefore speaks of repetition as a constraint because he would in fact rather forget the past and not fall into repetition.

With repetition comes resistance, and for Freud in the "working-through" process, ¹⁰⁴ we do not succeed in archiving our impulses; moreover, repetition, although in the present, still belongs to the past. We are not able to create the distance necessary to archive. To do so, we must learn to recognize the difference in every repetition in order not to resist the memory that may submerge us. This also goes for hypertext practices. Essentially one must not resist the clicking urge

Principle, 42 and "The compulsion to repeat must be ascribed to the unconscious repressed" in Beyond the Pleasure Principle, 20.

The "working-through" process stops when the patient realizes that he is living in the present

¹⁰³ Gilles Deleuze, Différence et Répétition, op. cit., 24.

that which belongs to the past.

of gleaning— which will allow for textual and cultural memories to occur and differences to be made.

Derrida writes that there is a theory of the Freudian archive, but that there is always an *impensé* – an unthinkable, an unthought – that enters the history of the archive. One always forgets one or several elements, either consciously or unconsciously. Hence the pain of archiving. Contrary to Deleuze, for Derrida, "working-through" is not quite a blockage but a concept in formation. If, for Deleuze, there is blockage in repetition and in its memory, and if what matters the most is finding a difference, then for Derrida, what matters is the future: "c'est d'avenir qu'il s'agit ici et de l'archive comme expérience irréductible de l'avenir." 105

Yet if for Deleuze there is blockage in repetition and in its memory, what matters is finding a difference. With Derrida, on the other hand, we turn to the future: "c'est d'avenir qu'il s'agit ici et de l'archive comme expérience irréductible de l'avenir." ¹⁰⁶ I would suggest that just as selective memory, an archive must be allowed to "forget" occasionally, or rather conceal, because if we are only concerned with knowing the source of something, we will be blocked in our creativity.

¹⁰⁵ Jacques Derrida, Mal d'archive, op. cit., 109.

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There must be a non-linear way to explore the configuration in which all these concepts belong. For, indeed how can the archive forget? Here, I continue questioning repetition and difference within the conceptualization of replacement to grasp fully the implication of replacement.

One of the most coherent reflections on amnesia today remains Freud's theory on the memory-screen. For Freud, the first memories of a person's life are hidden, buried in the impenetrable regions of the mind without any interferences from the outside. Other more recent memories conceal these original memories from our vision of the past. It seems clear that language acquisition is a necessary condition for the exercise of memory and for a child's interpretation of the physical and temporal world frames.

However, more importantly, in new textual and visual practices like hypertext and numeric networks, we are caught between archiving a concept in a perspective of repetition and looking at its difference in order to go from singularity to singularity within a dynamic of replacement and scattering. This not only implies that we re-visit the rhizome; it also means assuming our being and becoming as a process – even a game – of differentiations, where the reader-gleaner rather than attending to concepts or to what is being forgotten in the transfer, thinks about being caught up in a stimulating gleaning creation. But do we perhaps linger too much on the text and its concepts, having the habits of a 'monastic archiving reader'? In a future archive, we should tend towards redefining reading as

becoming a reader-creator. As a reader, I have only to be in the midst of it all and, as in a rhizomatic hypertext, think about rooting links from where I am and using concepts in a creative perspective.

Again, why the rhizome? Because I have seen people as varied as literary theorists, philosophers and cinema critics, disk jockeys, visual artists and even a dancer, in Canada, in the Netherlands, and on the World Wide Web, being inspired by Deleuze's work. Coincidentally, in Dutch, "De leuzen" is a saying or a slogan. In a redefinition of hierarchy, in a video-clipping, a fragmentation or a sampling textuality, I would suggest using modes of textuality that cross borders like a "leuzen", or a slogan.

Even if Landow in his second version of his book on hypertext, in the convergence of technology neatly categorized and named version 2.0 or *Hypertext* 2.0, writes a few pages on hypertext as rhizome, 108 knowing and not neglecting that many come to understand the work of Deleuze and Guattari because of hypertext or vice versa, it is clear that he does not believe the concept to be essential to the study of hypertext. It seems that for him, to talk about hypertext is necessarily an analysis on an Eastgate 109 published fictional hypertext.

¹⁰⁷ For the "reader-creator", see "Preface" in *SubStance* no. 82, *Special Issue: Metamorphoses of the Book*, Renée Riese Hubert, ed. (Madison, Wisconsin: The University of Wisconsin Press, 1997) where Renée Riese Hubert ended her introduction by arguing: "that we have to redefine reading and the reader", 7.

George P. Landow, in *Hypertext 2.0, The Convergence of Contemporary Critical Theory and Technology*, pages 38-42 are on the rhizome.

Eastgate Systems, Inc is a company that develops hypertext software. Some Eastgate hypertexts are published on CD, others are published on floppy disk. Eastgate started publishing hypertexts in

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Landow does not speak about hypertext as a cultural practice and does not dwell on the rhizome which is essentially a counter paradigm, not something that needs to be realizable concretely in any kind of real fictional hypertext published through Eastgate's hypertext software. Landow describes the rhizome as if it were referring to something with neither beginning nor end, but a middle (*milieu*) related more to the "quasi-anarchic networked, hypertext one encounters in the World Wide Web." In saying this he does not seem to be able to converge beyond the idea of a text. I believe that by retaining a distinction between the idea of linking within the closed network of a fictional text or linking within the more open World Wide Web network, Landow cannot take the step of seeing hypertext as a broader cultural practice, which can indeed be understood through the rhizome concept when it comes to transforming our ways of working with texts.

^{1987,} when there were not many hypertexts and very few tools available for conceiving a computer-based hypertext. Their best known software for writing a hypertext is *Storyspace* sold at 295 US\$. Eastgate has always claimed in a true publisher's logic that "Storyspace is best known as the tool of choice for serious hypertext writers." And so, as a true *serious* publisher, Eastgate mostly publishes Storyspace developed hypertext fiction, non-fiction and poetry by what they call established authors such as fiction writers like Michael Joyce and Shelley Jackson, award-winning poets like Stephanie Strickland, scholars like George Landow and David Kolb.

110 George P. Landow, in *Hypertext 2.0, The Convergence of Contemporary Critical Theory and*

Technology, op.cit., 42.

II. Memory Practices: On Memory as an Archetype

Transmitting Memory and Connecting Knowledge

New technologies are said to be transforming our ways of working with texts. A simple example is that we rarely find hand-written texts anymore. Most documents are written using a computer, and information seeking is often performed by using browsers on the Internet. The proliferation of digitally written documents forces us to stop and think somewhat about the nature of these writings in terms of users. My exploration raises a few questions. How can new information technologies, and especially the practice of hypertextual browsing, assist students, researchers and citizens so that they can manage, filter and contextualize the production and circulation of information? How can hypertext promote the dissemination and accessibility of humanities knowledge inside and outside academia? The short answer: by sharing and generating ideas on the Internet, through discussions, through the exchange of research, and through digital libraries.

In passing, these questions were asked by the Social Sciences and Humanities Research Council of Canada at their 2000 Conference in Toronto: "Alternative Wor(l)ds: The Humanities in 2010". At this conference, it was asserted that knowing and acknowledging the presence and changes brought by new information technologies was not even an issue anymore. Indeed, by the year

2000, it was clear to all that hypertext digital modes had started influencing and altering the approach to textuality and literacy in general as well as the ways in which we read, write and interpret expressions of human experience and memory.

Yet it was also apparent that

in all domains the advent of cyberspace has been transformative: making available the tools of big science to small science, providing unparalleled data, text and manuscript archives, reducing the hurdles of long-distance collaboration, fostering unexpected and innovative partnerships and opening up vast new territories for the conceptualisation, design and delivery of both teaching and research.¹¹¹

Thinking about the humanities in terms of the new technology revolution means engaging in a debate on the role of those of us who teach culture. Memory preserved over the ages and passed down by the written culture is no longer found only in print and hardcopy; it can also be digitized and its textual presentation can be entered as data, worked on and revised on a computer screen and organised hypertextually. Hypertext may be considered an extensive network of links, a vast system of concepts, a giant web through which texts of variable size can be transmitted.

In general, text is a term that is considered as an arrangement of words and sentences constituting a set of ideas and statements. Text is associated with mind production as well as with material production. However, there is no text without first an inscription. If a text is linear and follows a thread, it is expressing logical

This new phenomenon means that we must examine our cultural heritage and its mode of transmission in a new light. It has been established that our cultural past is communicated intertextually and that we cannot understand the passed-on ideas unless we know their origins and their heritage. Knowledge will only be watered down or lost if we fail to develop a specific pedagogy of memory in which teachers of knowledge, of archiving and of the transmission of links will be responsible for establishing connections between texts and the accessible, identifiable concepts within them. Gilles Deleuze and Félix Guattari noted that the history of every concept is a winding one, composed of the bits and pieces of other concepts. 112 As we trace concepts and ideas, we consider how they have influenced one another and how they have been recycled and reused; there emerges a distinct cultural memory built on contacts and interrelations. The rhizome. 113 allows connection of thought as well as the cross-fertilization of ideas without necessarily resorting to a structured, hierarchical approach to conceptualising memory.

Memory in this form is expressed by means of a changing yet increasingly exchange-based type of textuality. Even though we would rather ask questions and continue surfing through scattered cultural documentation, it should be noted that the zapping mode must indeed influence the way that knowledge can be

Gilles Deleuze and Félix Guattari in *Qu'est-ce que la Philosophie?*, op.cit.,: "Tout concept a une histoire en zigzag. Dans un concept, il y a des morceaux ou des composantes venus d'autres concepts." 23.

series in continuous progression. Not to lose the thread of the text signals the fact that the idea or history told has a logical thread. The modern encyclopaedia through the methodical form or through alphabetic compilation seeks to summarise the totality of knowledge, but knowledge is also acquired by making associative memory links.

In spite of its frame, we see that text is part of a broader whole and that it overflows because it can connect to other texts; that is, make associative links. It only exists because of the other texts and tends to move on. Like a footnote that stands out at the bottom of the page, text resides inside cultural codings, inside a cultural context that one can manage memories. Text stands inside a coded system to which one has access through training. This permits us to acquire a certain set of learning skills. Such encyclopaedic knowledge should be able to include everything.

The text retains its identity within a vast textual field. In literary studies we realize that literacy is also the need to learn relations of intertextuality as text coding implies text relations and text confrontations. Classically, reading is often a game of decoding, of recalling memory and recognitions. Having a common curriculum, the reader must be able to make associations of ideas in order to establish existing links between ideas. This gives access to knowledge.

Social Sciences and Humanities Research Council of Canada: "Alternative Wor(l)ds: The Humanities in 2010", Conference held in Toronto, October 2000. For more information see http://www.sshrc.ca/web/about/publications/humanities report e.pdf

considered. Knowledge is changing for it can no longer be fixed on the hard premises of printed and organized documentation.

The text transmits memory as written and archived in hardcopy. Since Gutenberg's invention, we have increasingly used paper to exchange memories. By reading and writing, we convey our cultural memory and, of course, stories and history are also passed on orally within a wide network of exchanges. In a sense, the new technologies merely expand exchange or an oral-history-based learning. Hypertext can be a major educational aid for transmitting memory, recognising intertexts and teaching general knowledge. However it is not just a tool because memory and knowledge change through the new practice.

For the literary critic Roland Barthes text is structured but also decentered and never closed, having no end or centre; meanings do not coexist within the Text; they travel or cross over it. 114 Therefore, Barthes adds, literature can be seen as an intertext, and each text is a set of interwoven quotations. However, in the process of recognizing meanings as they cross over the text, the student-reader often has to work on her own to drive out, to understand and decode a particular allusion and the linkages among texts. In a way, a reference is a sample, a graft, or a clipping to be added to a collage. The various parts of the collage can be linked within a single hypertext, but any accumulation of references and quotations requires

113 Gilles Deleuze and Félix Guattari, in the "Rhizome," op. cit., 9-37

¹¹⁴ Roland Barthes, "De l'œuvre au texte" in *Le bruissement de la langue, Essais critiques IV* (Paris: Éditions du Seuil, 1984), 71-80.

guidance, and this is why we must develop a pedagogy of the hypertext. Allusions and interrelationships depend on the reader's ability and knowledge, so a process of reflection on how memory is transmitted becomes necessary.

Working in the humanities means, among other things, communicating the educator's task of continuing the learning process that is, teaching how to read and how to remember. If hypertext, as a mode of thinking, is the new locus of reading, then we must learn to read and communicate it. In a text in hypertext format, it is possible to make direct reference to the hints and intertexts present in a document. For example, through clicking on a pointing device such as a mouse, highlighted non-sequential hyperlinks can lead to other regarding texts or to other media, such as images, video, or sound.

Furthermore, reference is made directly available through digitization in that hypertext can weave a network from all the allusions and background of a text as well as the text itself. In a hypertext composition, the quotation and the collage will *be* the text. It will be possible to build networks of hypertext connections out of "borrowings" alone. An electronic text must be viewed as a network of multiple calls that uses existing textual material and sends it in different directions, with vectors pulling one another and interweaving in order to mark the interconnections between different pieces of writing. I stress that it is hypertext that makes these

interconnections possible. Through this associative way of thinking, 115 the electronic text is set up to function as a vast network of instances of recognition and learning that strengthen the intertextuality inherent in every culture. Hypertext facilitates cultural circulation and manipulation by giving direct access to references, allusions and cultural history as a whole.

In short, it offers us a new type of school where students can learn how to establish links between texts. However, for success to be achieved, the student must know how to follow commands and click on the framed boxes so as to track the vectors. The student must also exhibit the patience and effort required for a comprehensive reading of the text.

With the increasing use of new technologies, there is a renewed interest in reading. A hyperlink can make an old document a contemporary one, and there is less chance of it gathering dust on a shelf. The visibility of a text is enhanced if it is in an electronic databank. Once recovered and brought out of the shadows, the text can take on a new face, begin a new life, and re-emerge in the collective memory. This is where information and education come into play. Cultural web site page creators do not automatically think of adding documents by using the connections within texts and their intertextual references, as they reuse and recycle material. Similarly, they are not always thinking of mapping out connections and references. It is up to those in the humanities to make these links and to learn how

¹¹⁵ For Deleuze and Guattari, as already seen, a book's meaning is based solely on its connections

to use this new "unsorted" library as new way of conceptualizing texts. By working with textual and cultural junctures and interconnections, scholars in the humanities can seize the opportunity in guiding the new reader-creator by teaching a rhizomatic way of thinking. The new technologies can promote access to knowledge and its distribution by exploiting hypertext in order to disseminate knowledge and questions instead of taking a hierarchical approach. In other words, scholars can practice the art of establishing links, using a non-hierarchical, rhizomatic mode of thinking to make knowledge more widely available instead of restricting it within a single field or a restricted community.

Making (Relevant) Memory Clicks

Our Western education system teaches the student to establish links among all the accessible references and pieces of information, but sometimes she does not know where to look for connections in this mass of material. She may have the impression that she does not know enough and can easily get lost in this vast Babel library.

With the expansion of hypertext and technology, the total library can be conceived as an imaginary, virtual library, a utopia where it would be possible and feasible to create a gargantuan collection of all texts. The virtual library giving access to multiple electronic texts is feasible. It will be a databank providing non-

linear, flexible access to information and allowing users to consult documents in any order by individually selecting the subjects of interest to them. By housing data in the same location, knowledge and memory may be pooled and tied very closely to an education system in which not only reading but also writing will blaze a new trail and regain lost ground.

Today literary studies asks not only how texts are related to other texts, in an intertextual, diachronic genealogy, but also how texts are related to other cultural phenomena, in an intra-cultural, synchronic perspective where maps, architecture, food, film, sexual behavior, and other aspects of culture and society are regarded as part of a larger, continuous process. [...] Particularly in a global age, cultures consist of a plurality of subcultures, which often originate from outside and, in Europe, increasingly from non-European countries. Cultures are not stable; they are in constant flux, tension, and conflict. Instead of transmitting the dominant culture from one generation to another, the new literary studies investigates how cultures work in their multiplicity, in conflict and tension. ¹¹⁶

By association, here David Lynch's cult television series in the 90's, *Twin Peaks* comes to mind, especially in his leitmotiv quote, "the owls are not what they seem." This also meant in fact, that, interpretations can be very diverse and that stories and memories work increasingly in multiplicity and through links. By having access to this new technology and participating in the dissemination of knowledge in this way, we will learn how to build a connected collective memory.

¹¹⁶ Haruo Shirane, "Terrorism, Culture, and Literature" in *Why Major in Literature - What Do We Tell Our Students?*, PML4, (May 2002, Volume 117, Number 3), 513-514.

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David Lynch and, Mark Frost, *Twin Peaks*, (TV Series debuted on ABC in the spring of 1990) an innovative and surreal television series where Agent Cooper investigates quirky Northwestern town's dark underside after teen Laura Palmer's brutal murder.

Furthermore, texts and readings will cross the oceans in a matter of seconds. We have a new medium for acquiring memory, where education is not a solitary, individual process. The number of network users is increasing steadily. People can correspond directly and instantaneously with many others, participate in chat groups, thus getting the sense that they are communicating and learning collectively. The goal of an electronic, hypertext-based education wor(l)d would be to learn within a community and pursue knowledge collectively by means of a new form of learning.

The humanities must therefore aim for a pedagogical approach that incorporates the communication of knowledge through the new technologies and their potential for generating an associative mode of thinking in humanities research. This would enable researchers, especially the new generation of academics, to develop a communication and exchange network, stay abreast of new developments, and discuss issues with one another through listservs and chat groups (as seen at the end of this section regarding the Lucy Maud Montgomery community in cyberspace.)

In this way, not only is the learning process for young researchers be energized but they are no longer isolated in their field of specialization. Instead they are empowered and able to discover the many forums for the exchange of ideas made available through the new technologies. Twenty years ago, Michel de Certeau spoke of the *multiple locations of culture*, making it possible to maintain many

types of cultural references whether in the classical way of teaching in the university or in professional teaching schools of the liberal professions. According to de Certeau we are increasingly working with multiplicity and with flexibility because of our diverse backgrounds and our increasingly diversified, interdisciplinary interests.

Une abondante littérature pédagogique et culturelle se développe sur la base des métiers ou des activités de loisirs: la pêche, le jardinage, le bricolage... Elle est aussi importante, à mon avis, que celle des manuels scolaires. [...] On assiste à une *multilocation de la culture*. Il devient possible de maintenir plusieurs types de références culturelles. Par rapport au monopole que détenait l'école, une plus grande liberté devient possible avec ce jeu d'instances culturelles différentes. ¹¹⁸

Our popular cultural references are growing in number and we are searching for new ways of locating and communicating them. Given that knowledge can be communicated electronically and that traditional hardcopy publication is becoming more expensive and difficult, we may as well send our ideas to a location with the possibility to handle them and ensure that they will be communicated. Ideas will still be exchanged, but instead of doing so in a closed environment, "learned societies" will operate more and more as electronic networks, with exchanges and meetings occurring at a specific time of day, as in the case of the public reading of a chat group.

People will be able to discuss culture at any time and with anyone, wherever they may be, because you do not have to be from a particular culture to know a

particular culture, and you do not have to be in a particular time or place either. Studying in the humanities has increasingly become a matter of blurring the borders of disciplines and unframing genres in order to redraw cultural maps. In fact, the result is a transformation of the way we think about the way we think.

"Fluid, plural, uncentered, and ineradicably untidy," writes anthropologist Clifford Geertz about the culture of text. His description also applies to the new hypertextual approach to culture which provides for flexibility and encourages contact. Pedagogically, hypertext offers a means of accessing memory everywhere in the world during an era when the ideology of globalization recycles the commercial mantra of reaching as many people as possible or, at the very least, reaching as far as possible. But unless the people who are in the business of passing on knowledge get involved in the new practices of communication, they will merely regurgitate and recycle memory, not teach the acquisition of memory, and the result may well be misinformation or information overload.

It is the responsibility of people in the humanities to take charge of the knowledge communication process. Yet, what will cultural memory become: an

¹¹⁸ Michel De Certeau, "La culture et l'école" in *La culture au pluriel* (Paris: Éditions du Seuil, 1980), 120-121.

¹¹⁹ Clifford Geertz noted: "The properties connecting texts with one another, that put them, ontologically anyway, on the same level, are coming to seem as important in characterizing them as those dividing them; and rather than face an array of natural kinds, fixed types divided by sharp qualitative differences, we more and more see ourselves surrounded by a vast, almost continuous field of variously intended and diversely constructed works we can order only practically, relationally, and as our purposes prompt us. It is not that we no longer have conventions of interpretation; we have more than ever, built- often enough jerry-built- to accommodate a situation

online library? An infinite number of seminars delivered via the Internet? Will the student stay in her study, developing her ideas in a vital, dynamic, inexpensive setting through an Internet chat group? If we are short of research funds, we will look for knowledge wherever recycled documentation and analyses can be found, because readers want culture to be conveyed to them. When we use hypertext, our approach to research and reading changes: we travel through the text, selecting and entering our fields of interest in the ever-present context of interference and pluridisciplinarity. Using hypertext means reinscribing the text in a fragmented game of mapping and repositioning the text as a relational force aware of its network and its references, interferences and fragmentation.

In ideas or icons travelling across a hypertext-based text, there is no need for a whole work. Different from that of deciphering a hardcopy document; it is a challenging process of dealing with fragments, drafts and the inconsistency and incoherence associated with them.

In the world of paper, the manuscript leads to the book; in the electronic world, the book seems to have gone back to the manuscript stage and turned back into a malleable, tangible object with links to be made. Hyperlinks are not binding; they do not condemn reading to endless repetition. However, because this type of reading is based on links, we need guides as well as conceptual and assessment

at once fluid, plural, uncentered, and ineradicably untidy." In *Local Knowledge, Further Essays in Interpretative Anthropology* (New York: Basic Books, Inc., 1983), 20-21.

practices to tackle the new approach to communicating memory and thereby fully develop the role of the dynamic reader.

By way of a preliminary conclusion, I suggest the humanities can act as guides and provide a critical assessment of the way in which the new technologies influence learning and culture. Indeed, the very context of the humanities and the type of questions they ask make it possible for people not only to learn a philosophy of knowledge sharing but also to question the way in which collective memory is passed on and reused.

By seeking and creating hyperlinks, a reader-creator may short-circuit exclusion, find many partners in thought, avoid isolation in a single area of specialization or monolithic mind set, and instead promote pluridisciplinarity and an openness to knowledge and shared memories. In the modern context of globalization, such an approach can only help us in our quest to understand cultural connections and interferences and means of cross-fertilizing and hybridizing ideas.

(In)voluntary Memory

While drawing on Proust's work, I wish to divide memory in two in order to see how hypertext memory searches are done. For Deleuze, the examination of Proust's masterpiece is to look both at involuntary memory as well as voluntary Moluntary memory looks for specific recollections in the database of souvenirs whereas associative memory or fragmentary memory as seen in the madeleine example implies involuntary memory where things pop up spontaneously extending memory across several moments and epochs. It implies that an older sensation is being layered over a recent feeling according to Deleuze: "fait intervenir la mémoire involontaire: une sensation ancienne tente de se superposer, de s'accoupler à la sensation actuelle, et l'étend sur plusieurs époques à la fois." 121

When opening an archive or a book, the involuntary long-term memory is brought up as if we were dipping the madeleine biscuit. In contrary, short-term memory such as in the film *Memento* treated below, is just an attempt to reconstitute the aid of involuntary memories artificially.

A study on memory could easily become so vast that it would imply clicking on the following cluster words or "highlighted text" and "button-like objects" which could in a hypertext form the following hyperlinkable icons:

COLLECTIVE MEMORY SOCIAL MEMORY INDIVIDUAL MEMORY
PHOTOGRAPHIC MEMORY COMPUTER MEMORY FILM MEMORY
ARTIFICIAL MEMORY NATURAL MEMORY SELECTIVE MEMORY

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Deleuze, Proust et les signes, op. cit., 39.

Aware of memory's selectivity and vulnerability, whether we wish to recall a particular moment from our own life or have access to a more collective cultural memory, we are always in need of a medium or memory aid for accessing traces of memory.

The one who writes and the one who reads must explore memory because both are involved in cultural practices. Awareness of the world in which we live, in the age of technology and upgraded computer memory, requires stopping and thinking about the way we treat cultural memory through hypertextual linking. Of course, memory is a huge topic that cannot be tackled in just a few words. Nevertheless, we should consider here a few aspects of the discourse on memory. We know hypertext is made of documentation storage, that is, documents widely composed of cultural data that function as a memory archive. But what are we to do with all this documentation that belongs to our collective memory?

For example, Edouard Glissant in *Le Discours Antillais* wonders whether writing traces are enough to archive collective memory. The primordial image of remembrance and cohesion of a group is its memory and for him, a writer's primordial task is to reveal the past. In the case of the author from the West Indies, it is important to highlight how West-Indian historical memory has been misguided, even altered:

¹²¹ Ibid., 29.

Le passé, notre passé subi... la tâche de l'écrivain est de d'explorer ce lancinement, de le « révéler » de manière continue dans le présent et l'actuel (note 1): C'est le moment de se demander si l'écrivain est le receleur de l'écrit ou l'initiateur du parlé ?... Si la trace écrite est-elle « suffisante », aux archives de la mémoire collective ? L'écrivain doit fouiller la mémoire... parce que la mémoire historique fut trop souvent raturée, l'écrivain antillais doit « fouiller »cette mémoire, à partir de traces parfois latentes qu'il a repérées dans le réel. 122

Following Glissant's archaeological argument, I wish to argue that following traces is easier when electronic media is used to effectuate document searches. The new technologies are so fast that they can not only find, but also record or erase memory equally well. Of course much still depends on the material that has been entered and by whom.

Electronic media tape plus save and scan functions are all means that facilitate registration; nevertheless, all memory-processed recorded documentation can just as easily be copied over, rewritten and erased. The relation between memory and hypertext processing is precisely the in-between passage of convergence of scattered traces where memory can be produced.

There are many ways to acquire knowledge. One of them is by making cross-disciplinary connections when we cut and paste memories. Our cultural training comes together through canonical remembrances. As we have the possibility of entering more and more diverse databanks and different means of inquiry, our

¹²² Edouard Glissant, Le Discours Antillais (Paris: Gallimard, 1997), 27, note 1.

ability to make connections grows and improves as we get to share the documentation of several cultural memories.

According to the pop culture commentator and author Douglas Coupland, "We emerge from our mother's womb an unformatted diskette; ¹²³ our culture formats us." ¹²⁴ So, like a computer memory waiting to be filled, our cultural up-bringing makes us catch fragments of a so-called common memory or cultural memory. Cultural objects have been produced, are being made and shall probably continue to be invented and stored for future generations, who are waiting to be formatted. Accumulators create their own subjectivity in search of narration, afraid of the lack of history. Is it fear of amnesia or forgetfulness that makes us produce more and more cultural debris?

With the fear of forgetting comes the need to remember – for, just how do we remember? Walter J. Ong in his analysis of the communications media *Orality and Literacy* rightly reminds us that memory can be oral language as well as written literate textuality but that for recitations one also needs text. "In a literate culture verbatim memorisation is commonly done from a text, to which the memorizer returns as often as necessary to perfect and test verbatim mastery."¹²⁵

¹²³ The human mind and memory is seen here as a *tabula rasa*- as something new and empty that should be filled up with information.

Douglas Coupland, Polaroids from the Dead (Toronto, HarperCollins Publishers, 1996), 122.
 Walter J. Ong, Orality and Literacy, The Technologizing of the Word (New York, Routledge, 1982), 59.

How to trigger our cultural memory about those forgotten links, forgotten allusions and references? Texts are one of the many memory transmitters. The souvenirs present in memory may or may not be forgotten and have often been pictured as if they must be written down in order to be remembered in the future:

And yes we still do dream of cities where there is still no past and where the future remains entirely unwritten, of cities where there are grassy canyons and water glazed by the sun into gold, of a billion butterflies floating through a billion coral trees, of water piped in from heaven and where there are limitless gleaming wide white freeways that will lead us off into infinity. 126

Of course, memory is not just written, it can be indeed be illustrated in a photograph or even remembered collectively and individually in the mind and passed on orally indefinitely. With the arrival of hypertexts and their use on the World Wide Web, it is interesting to observe how we may preserve a cultural heritage through Net-browsing or how we form a 'cultural memory map on the Net'. I would like to approach the translation and transition of literary work into the electronic medium through a view of a "cultural memory" or "collective memory" of a given social group as described by Maurice Halbwachs in *Les Cadres sociaux de la mémoire*.

Through hypertext, a community based on memory can have a representation of the past while putting the accent on its repetition and its insistence. Yet what is this memory that one wants to map? Is it mere investigation or reconstitution of the past or, as Halbwachs puts it, a reconstruction of the past because memory does not relive the past but rebuilds it. The reader searches for traces, and thus installs an inheritance. For Halbwachs this "collective memory" is not imposed but rather has a function of reinforcing social cohesion by an emotional adherence of the group.

Our history remains based on how "memory frames" allow us to rebuild memories. They must become a repetition and not a resurgence of the ancient state. To be able to remember, it is necessary to replace memories in a whole context of facts and ideas. If web browsers are creating their own "collective memory" as they join nowadays in their search for cultural reminiscences, I wish to show how "cultural recycling" on the World Wide Web is a transition towards creating, rather than only repeating a collective memory. It is even memory that can stem from forgetting and not necessarily from the obligation of remembrance. According to Derrida's interpretation of *Phaedrus*, remembering through the aid of writing is in fact a form of forgetfulness.

L'écriture est cet oubli de soi, cette extériorisation, le contraire de la mémoire intériorisante, de l'Erinnerung qui ouvre l'histoire de l'esprit. C'est ce que disait le Phèdre: l'écriture est à la fois mnémotechnique et puissance d'oubli. 127

Memory is the safekeeper of knowledge, but if memory is an incubator or an accumulator of data, it does not guarantee thought. Memory, as for *Phaedrus*, can retain but must also be made to think, or rather, to reminiscence. Of course to

Douglas Coupland, op cit., 198.

continue talking of memory would take much more time and space than is possible here. Briefly, in terms of the thoughts and ideas that we are elaborating on hypertext, memory interferes as an archetype of knowledge. Memory is made up of fragments, of traces that we call souvenirs when they are personal and individual remembrances. This is often seen as creating continuity, but in a state of becoming, as Deleuze and Guattari see it, nothing can be permanent for the subject is always in a state of change.

Memories occur and constantly change the subject but memory is not only voluntary remembering. What literature has called the stream of *un*-consciousness can also trigger off souvenirs. However, memory is not predetermined and fixed according to a knowledge canon. I rather argue that memory is infinite and unlimitedly open. In this optic, I would rather want to ask whether to come to terms with the past demands if memories must be forgotten? A question arises here: Can there be a *tabula rasa* when it comes to memory, that is, can memory be formed from scratch? But then again, if points of origin are forgotten, are we still able to form an identity, a difference?

By taking care of our cultural past, we may craft continuity and a future. Memories are uncertain, things tend to be forgotten as well as remembered out of the blue. Involuntary memory occurs in a moment of inattention, of urgency. Just as with the quick click of the mouse, one hurries along the electronic pathways of

Jacques Derrida, De la Grammatologie (Paris: Éditions de Minuit, 1967), 39.

memory access or as they say in computer sciences, RAM or random access memory.

Rhizome Access Fragmented Memory

Random Access, in computer jargon is a term referring to non-sequential media, such as hypermedia, that do not have a physical beginning, middle or end. In this study, 'rhizome' could replace the 'random' present term in RAM in the sense that hypertext can be considered Random Access Memory. As data storage that can be 'written to' and 'read from', RAM memory is volatile. If only for temporary storage, it is nonetheless used to run program applications in terms of 'archiving'; this access memory has to be more 'permanent' yet still 'erasable'. In other words, memory is not just ROM—Read-only-memory— which is software that is physically embedded in a storage device in a permanent form that cannot be erased or inscribed to. Parts of a computer operating system may be stored in ROM, which unlike the software stored in RAM, will not be lost when the power is turned off.

Memory is the computer's place for instructions and data that the microprocessor can reach quickly. The term memory is often used as a shorter synonym for random access memory. The more RAM you have in your computer, the less frequently the computer has to access instructions and data from the more slowly accessed hard disk form of storage. Memory is sometimes distinguished from

storage, or the physical medium that holds the much larger amounts of data that do not fit into RAM and may not be immediately needed there. Data storage devices also called *auxiliary storage*, *auxiliary memory*, and *secondary memory* include hard disks, floppy disks, CD-ROMs and other backup systems.

RAM is called "random access" specifically because any storage location can be accessed directly. Fragmented, it also been called "nonsequential memory" because RAM access is hardly random. RAM is organized and controlled in a way that enables data to be stored and retrieved directly.

RAM often is compared to a person's short-term memory; the hard disk, to the long-term memory. The short-term memory focuses on work at hand; hence when your short-term memory fills up, your brain sometimes is able to refresh it with facts stored in long-term memory. A computer works similarly so that if RAM fills up, the processor needs to go continually to the hard disk to refresh the data, thus slowing down the computer's operation. Unlike the hard disk which can become completely full of data so that it fills up, RAM never runs out of memory. It keeps operating, but can start being very slow.

Even if computer memory were originally inspired by human memory, nowadays, human memory is often compared to a computer. The memorial function is not in this case just one of the functions of the brain-computer. However a computer preserves identical information and restores it without

change, whereas an event of a real personal memory never comes up identical. We know that the result of the practice of recollection depends on the research context. Besides, the memory of even a recent event is often remembered through reconstruction and must generally comply with an autobiographic narration. The link between the physical level (the brain) and the purposeful level (thought conceived categorically like a computer program) remains mysterious. Machines, even the most subtly constructed do not remember in the sense that they not have an affective memory. What technology does is record, preserve and restore information.

A memory is never immobile. There is controlled progression of stages inside every memory. To this almost linear progression corresponds an ability to be absorbed in the past. However, in the progress of a souvenir, temporality is not of chronological nature. Memories have an incontestably emotional quality. They come with an aura, a mix of desires, pleasures and regrets that surround the evocations of the past, thus producing the effect of nostalgia. Nostalgic memory comes from the implicit knowledge within us that the past is not repeatable; memory can only be re-presented. Besides, most memories do not come to our conscience solely alone and isolated, they most often are related and include other memories.

Manuel Castells in *The Network Society* talks of the central role of technology in Western society built on knowledge education and on what it does to the

experience of temporality

The timelessness of multimedia's hypertext is a decisive feature of our culture, shaping the minds and memories of children educated in the new cultural context. History is first organized according to the availability of visual material, then submitted to the computerized possibility of selecting seconds of frames to be pieced together, or split apart, according to specific discourses. School education, media entertainment, special news reports or advertising organize temporality as it fits, so that the overall effect is a nonsequential time of cultural products available from the whole realm of the human experience. If encyclopedias have organized human knowledge by alphabetical order, electronic media provide access to information, expression, and perception according to the impulses of the consumer or to the decisions of the producer. By so doing, the whole ordering of meaningful events loses its internal, chronological rhythm, and becomes arranged in time sequences depending upon the social context of their utilization. Thus, it is a culture at the same time of the eternal and of the ephemeral. It is eternal because it reaches back and forth to the whole sequence of cultural expressions. It is ephemeral because each arrangement, each specific sequencing, depends on the context and purpose under which any given cultural construct is solicited. We are not in a culture of circularity, but in a universe of undifferentiated temporality of cultural expressions. 128

Thus for Castells, temporality is no longer either eternal or ephemeral but above all hypertext as a cultural characteristic has rendered temporality also nonsequential and differentiated; that is, fragmented.

Let us take two definitions of memory from the *Book of Memory* by Mary Carruthers, ¹²⁹ culled from medieval studies on memory. On the one hand, she sees that there is memory as storage, or *memoria* and *mnesis* and on the other hand, memory exists as an act of recollection or *reminiscentia*: "Described as a part of rhetoric", memory "refers to training and discipline in memorial and recollective

¹²⁸ Manuel Castells, *The Information Age, Economy, Society and Culture, Volume 1: The Rise of the Network Society* (Malden, Blackwell Publishers, 1996), 462.

technique." ¹³⁰ But memory is not just archival and technical, even if memory as an instrument of acquirement and conservation of knowledge of the past can be seen as the archetype and the model for hypertext. Yet if memory is an accumulation of data and a place of storage, it does not necessarily engage thought. Hence it seems necessary to distinguish, according to Plato's *Phaedrus*, not only a mechanical use of memory whereby a text serves as a keeper without necessarily bringing about reflection but also an intellectual use for in reminiscence, whereby one must think and create links.

Memory can be a trace of the past as well as an involuntary memory, as in the Proustian madeleine that is experienced in the immediacy of the moment. In reminiscence, the past is reflexive. Hypertext practices memory not only through the selections made among accessible documentation, but also through the useful memories relevant to the present. Hypertext recovers and selects the return of elements that seemed disconnected or believed destined for oblivion. According to Bergson in *Matière et Mémoire*, ¹³¹ to perceive is to select and choose in memory that which will be useful so as to act in the future. However the daily routines or occupations are acted out through habit: we do not know how to see that which we have already seen too much. For Bergson, it is through art that we are able to see reality and to speak about life and to discover the worlds that surround us. Freud showed through his conception of a screen memory that memory is in fact

Mary Carruthers, *The Book of Memory, A Study of Memory in Medieval Culture*, (Cambridge, Massachusetts: Cambridge University Press, 1990), 46. 130 Ibid., 46.

selective, that because a souvenir reappears in spite of itself, the subject is at the mercy of her reminiscences and that the childhood memories we possess are a revision of a memory trace where the becoming subject cannot suppose any state of permanence and is only a succession of fragmented states of being.

Through interlinking practice, a community based on memory can have access to past archives while putting the emphasis on the user's search for knowledge. But what exactly is this memory that one wants to recover? Is it mere investigation or reconstitution of the past? These questions arise because memory does not relive the past but rebuilds it. The reader searches for traces, and thus installs an inheritance. This "collective memory" is not always imposed but has a function of reinforcing the social cohesion by an emotional adherence of the group. To be able to remember, it is necessary to replace memories in a whole context of facts and ideas. Societies have access to their cultural codes through a *memory-aid*.

From this perspective, hypertextual or interlinking practices are vital to learning which comes through fragment linking which, through reminiscence, also keeps memory central in our Western cultures, where it is not only imperative to know but also to remember. Our communities have traditionally been based on a story, on history, on memory that must be preserved and transferred. Archive is therefore, constituted in order to retrace our respective histories. Narrations vary

¹³¹ Henri Bergson, Matière et Mémoire (Paris: PUF, coll. Quadrige, 1939), 72.

from the intimate tale of an autobiography to the collective tale of an event that we agree not only on categorizing as an event but also as being part of history.

Like history, an event is a construction. This construction is also the making of a memory, of a collective memory or the construction of an internal memory and also a *voluntary* memory where we go back to the past thanks to precise points of reference as if following Ariadne's thread. On the other hand, the *involuntary* memory, or emotional memory is the appearance of a unforeseeable souvenir. Like the Proustian madeleine, it possesses such precision that one may almost speak of an apparition. In this amplification of a point from the past, there arises an emotion, an olfactive, and gustatory sensation similar to biting into the soft biscuit.¹³²

Memento or Body Inscriptions for Reconstructing Memory

A networked society still functions through related cultural facts that value the necessary references and allusions as well as the passages made in the world of ideas. However, that networked society remains not only in a nonsequential temporality but also within a new configuration of the imaginary space in the sense that the network society operates within cyberspace which is experienced simultaneously in the real and virtual space. In virtual space, no one can know for

¹³² See for example, the related recycling of the madeleine in the memory of the smell of a cup of coffee in the Palestinian author Marmoud Darwich's *Une mémoire pour l'oubli* (Paris: Actes Sud, 1994): "Le café, boisson soeur du temps, s'avale lentement, lentement. Le café est l'écho de la

sure who you are. Behind a computer screen, there is always the possibility to invent a character to hide one's identity. When navigating the Net, one can imagine becoming a cyber-cowboy as in William Gibson's novel *Neuromancer*:

For Case who'd lived for the bodiless exultation of cyberspace, it was the Fall. In the bars he'd frequented as a cowboy hotshot, the elite stance involved a certain relaxed contempt for the flesh. The body was meat. Case fell into the prison of his own flesh. ¹³³

For Case, the cyber-cowboy in *Neuromancer*, living takes place in cyberspace, in the world of the computer-mind that connects ideas and makes connections of different databases. It is a world where the body is experienced as a meat container or computer that allows for the cyber-cowboy to carry around files in his head in order to plug his mind on to a data network. People are themselves massive libraries or memory data banks. In Gibson's science-fiction world, memory is like a container as in Carruthers' analysis where it is seen as a place of storage, used in the an act of re-collection.

Another example of this concept in Gibson's fiction led to one of the first films ever made on cyberspace, *Johnny Mnemonic* (1995) starring Keanu Reeves. The screenplay was penned by William Gibson and was based on his original story. Gibson's books, including *Neuromancer* and the short-story collection *Burning Chrome* deal primarily with cyberspace. *Burning Chrome* contains the short-story

saveur, écho de l'odeur. Le café est contemplation, plongée en soi-même et dans la mémoire", 25. For the English translation, see *Memory for Forgetfulness* (Beirut, 1982).

William Gibson, Neuromancer (Toronto, HarperCollins Publishers, 1996), 6.

on which the film, *Johnny Mnemonic* is based. In William Gibson's vision of the future, the protagonist Johnny Mnemonic is a memory smuggler who contrabands data preserved in his brain through a chip implant. Johnny has a memory capacity of 80 gigabytes, but this cool Gibson cyber cowboy uses what he calls a "doubler" to raise it to 160. In the film, Johnny lands in trouble for having overloaded his memory storage capacity thus causing a potentially deadly memory crash situation. In the meantime, his storage-head makes him suffer terribly. If Johnny does not get the information out of his head in 24 hours, his brain will explode along with the precious 220 gigabytes of memory data and the information necessary for him to upload the data has been destroyed. As a result he must find a way to "hack his own brain" by entering cyberspace and recollecting the needed data to reconstruct his brain and his own memories.

The body in cyberspace is only "meat" or "heavy matter" that the protagonist must carry around, but which the character wishes to make abstract. Both Gibson's characters Johnny Mnemonic and Case act like readers lost in the imaginary world of a novel. As these cowboys enter the virtual network, they do not want to feel the body that keeps them prisoner and prevents them from escaping into total liberty. This liberty can only be found in cyberspace, "a consensual hallucination experienced daily by billions of legitimate operators, in every nation", ¹³⁴ which Gibson describes as an absorption:

134 Ibid, 51.

Then you could throw yourself into a highspeed drift and skid, totally engaged but set apart from it all, and all around you the dance of biz, information interacting, data made flesh in the mazes of the black market. 135

This means being totally absorbed in data turned into matter. The difference with a "real" library databank is that there is no heaviness of physical space anymore. In fact, when you enter the space of the imaginary there is no container or meat left, just like Madame Bovary in Flaubert's novel who is transported to an imaginary world that takes place in her head while reading. As if she were travelling in cyberspace, she enters virtual worlds existing only in her imagination.

Even if the cyberspace matrix is an architecture based on an ordering, a technique or a system, like a librarian's, it resembles more closely a surface that permits the reader to pass from one document to another according to non pre-established paths found at the time when the documents are being browsed or consulted.

In cyberspace, information-intensive institutions and businesses have a form, identity, and working reality—in a word and quite literally, an *architecture*—that is counterpart and different to the form, identity, and working reality they have in the physical world. The ordinary physical reality of theses institutions, businesses, etc., are seen as surface phenomena, as husks, their true energy coursing in architectures unseen except in cyberspace. ¹³⁶

In his classic on cyberspace, Michael Benedikt stresses cyberspace architecture even if cyberspace "does not yet exist outside of science fiction and the

¹³⁵ Ibid, 16.

¹³⁶ Michael Benedikt. Cyberspace, First Steps (Cambridge, Massachusetts, MIT, 1991), 123.

imagination of a few thousand people." ¹³⁷ In his view, it is more a surface container from where one can construct an information network.

Networks generate links as do memories in memory links. How to experience memory and reconstruct memory are some of the questions raised in any study of hypertext. Yet to raise these questions is to wonder about memory in life experiences too. The question necessarily becomes: How to permute a memory when things can easily be forgotten? For example, the film *Memento* (2000), a thriller by Christopher Nolan edited in flashbacks and fragments, reveals the relevance of memory permutation through a backward narrative while trying to restore the main character's non-linear memory. *Memento* deals specifically with memory loss and memory inscriptions.

Briefly, *Memento* relates the story of a man who has to rebuild his memory by patching pieces together in order to remember. The main character, Leonard, has lost his short-term memory after having been assaulted by the man who raped and murdered his wife. In order to take revenge, he must try and figure out who is his wife's murderer despite his lack of memory. He must inscribe his mementos or souvenir fragments on different surfaces, for example, on his skin, bits of paper and Polaroid's. He has words tattooed all over his body, a living surface that he uses for memoranda for future use. These include the quotes of all the essential

137 Ibid.

facts that should allow Leonard to function in his daily occupations and his quest for the man who killed his wife and robbed him of his memory.

Memento confirms the archetype of memory. It also demonstrates how the heuristic value of hypertext allows and assists the discovery of memory. The main character hopes to fix memory by using inscriptions on his body or pieces of paper just as one uses a fixative in order to set and stabilize a photograph, a charcoal sketch or pastel drawing. However, he will have to undergo the experience that memory can neither be rooted to the spot nor be fixed for as in the case of hypertext, memory is mobile. Indeed Leonard will realize that a photograph or a written sentence can never say enough.

Lost, alone, not knowing whom he can trust and having no one to whom he can turn, Leonard is disconnected from his community and his former life because he has no memories. Because he cannot store any information in his head, as a memory container, he is unlike Case in *Neuromancer*. Leonard desperately needs his body as a writing surface like a palimpsest or a kind of memory screen, according to Freud's terms. For both Case and Leonard, life is about keeping memories. These two characters in their separate stories survive different lives of solitude with nothing else to count on but their body-RAM-containers when it comes to memory storage and linking.

Memory can indeed be maintained collectively in order for a community to avoid

sinking into oblivion. But, as our previous examples have shown, memories are best built when exchanging collectively, as one can end up lost in one's readings when there is no one with whom to reminisce. So how to perpetuate a memory when one is confronted with forgetfulness? To which spaces can we turn? To which computer screen or book?

Of course, mementos recall a person or an event. Leonard, unable to create new memories and unable to keep a souvenir in his head for more than a few minutes, has to scribble notes, and snap Polaroids to keep track, not to mention the tattooed notes on his body surface used as a reminder. All of this, in the hope of finding a system that will help him remember.

Leonard lives from moment-to-moment in fragments that he must try and narrate using his notes. Leonard may try to create a coherent narration out of his notes but we end up doubting the accuracy of his memory reconstitution logic. As well as showing the need for memory practices and spaces of inscriptions, the link between meaning and memory appears here in all its complexity as this story shows how links and connections are necessary to generate a context from past experiences. How to remember if you do not have a context in which to remember? How can a face, a picture or an idea have any relevance? Christopher Nolan's *Memento* asks these kinds of questions.

Written in ink on Leonard's hand are the words remember sammy jankis. Sammy

Jankis is the man whose case Leonard had investigated. Jankis had lost his short-term memory and lost a sense of reality too. To illustrate this, here is an extract from the Screenplay by Christopher Nolan:

"REMEMBER SAMMY JANKIS"

- LEONARD:

Sammy Jankis had the same problem. He tried writing himself notes. Lots of notes. But he'd get confused.

Leonard licks his thumb, and rubs at the writing. To Leonard's surprise, IT DOES NOT EVEN SMUDGE. He notices his bare legs. There is a NOTE taped to his RIGHT THIGH with a handwritten message: "SHAVE"

Leonard pulls the note off, studying it carefully.

Close on the Polaroid of Teddy. Leonard flips it over. On the back are the messages: "DON'T BELIEVE HIS LIES"

222

- LEONARD

No. It's different. I have no short-term memory. I know who I am and all about myself, but since my injury I can't make any new memories. Everything fades. If we talk for too long, I'll forget how we started. I don't know if we've ever met before, and the next time I see you I won't remember this conversation. So if I seem strange or rude, that's probably...

He notices that Burt is staring at him as if he were an exotic insect.

LEONARD (CONT'D)

- I've told you this before, haven't I?

The *Polaroid* pictures serve as an aid to Leonard's memory. He records places and faces meticulously. As each image develops, a new 'memory' is created, a name of the person photographed written down. The *Polaroids*, and his own body are external reminders. Leonard no longer has to remember because these mementos are his memory.

Memory loss entails loss of identity. *Memento* forces us to ask: Can a memory made up of the connections of moments tell you who you are? What then is memory? Does it fit on bits of papers, snapshots or even *Post-It* notes? Or is this merely selective memory in the same way as hyperlinks are in fact, just the occurrence of a selection of documents put together in a kind of collection?

The perfect replacement for those "sticky notes" could have been to use computer technologies in order to establish links between ideas (or pages or nodes), sites, or files of information. What Leonard is trying to do every time is just to start brainstorming, to get all the elements to reconstruct his memory but he misses a short-term memory or a computer RAM to store the elements which he temporarily needs to get an overview. It is as if information is constantly being erased, or as if he cannot press the [Ctrl-save] keyboard combination that would allow him to put all the elements in one place, and view, arrange and link them.

Memory helps us know who we are and where we come from to give us a sense of identity and of knowledge. Memory constitutes knowledge of past events; however, for Leonard, there is no understanding the past, and there is only a collection of fragmented mementos.

Leonard can no longer select or access his memory which like a computer RAM has become volatile, a space for only temporary storage of thoughts. It thus

becomes impossible for Leonard to retain memories in his mind. Hence, we see in this film how it is impossible to replace one's memory. If memory is lost, one cannot just go and buy a hard disk to replace it.

Memory constitutes a knowledge of past events, but for Leonard, there is no understanding of his past, he can only compose a fragmented collection of mementos. Leonard's memory has become gleaning, because there is no reflectivity to his memory, and all his mementos are inscribed to substitute a memory.

Despite his aids to memory, his memory is unreliable and rather than a memento or souvenir of the past, his hyperlinked body surface becomes a labyrinthic palimpsest to decipher. How must he read or interpret, or shall we say, how must someone who has lost his memory make "reading links" if he cannot rely on his own memory? His solution is first to find memory inscription aids. Secondly he needs to observe or to lurk in order to make some kind of sense. In this example, a hierarchical cartography of memory seems indeed useless and inert for even if objects and mementos are tried as substitutes of memory in this film, it finally turns into a loop in order to bring up the issue of free associations of thought when reconstructing memory.

Hyperreal Memories of a Collective Memory

If memory necessarily passes through a body that recalls, one must ask whether it is in fact possible to imitate memory? Is memory actually so related to body that the hyperreal being of the world of the simulacra—so far from the flesh—can never come close to the practice of memory?

Hyperreality the term coined by the French theorist Jean Baudrillard in Simulacres et Simulation (1981) was revived by the Italian theorist Umberto Eco. In his landmark collection of essays, Travels in Hyperreality (1986), Eco comments upon fake worlds, such as wax museums and Disneyland, where visitors are given a reproduction of a famous person or a fake work of art so real and powerful that they no longer feel any need or desire to see the original.

Hyperreality according to Eco's essay connects the fake and the genuine. Similarly, the French philosopher Jean Baudrillard, commenting on simulacra and simulations in postmodern work, argues that modern consumer society is often out of touch with the real. The electronic media use the hyperreal to replace and reproduce the lost realm of the real. In the proliferation of simulated worlds, the hyperreal space opened up by Internet presents a vast, range of communication options in which only our imaginations limits our abilities. From Baudrillard's perspective, distance disappears into immediacy, and presence becomes a state of simultaneity where we can save the principle of reality by regenerating our

imagination and by creating our own reality. ¹³⁸ In a certain way, in the fictional worlds themselves, characters create their own reality. This is the case in the examples herein, the main characters in *Madame Bovary* or *Anne of Green Gables*.

These examples lead us to wonder: How can electronic networks correspond to real traditional communities? In a traditional community, a geographical space is shared, as well as an organization according to established political and social rules. A community constitutes itself from the moment that a number of individuals are grouped together and consider that they keep some common habits and customs. One specific factor that allows for group recognition is the constitution of this group's collective memory.

Even if virtual communities do not share a physical place and even if they are not consistent in their rules and organization, they do share a common conviction or an interest. Members of virtual communities do not need to meet physically in an assembly anymore and members can enrol in several lists at the same time. In the hyperreal space there need only be partial adherence.

As mentioned, importance is accorded to memory in our Western cultures where it is imperative not only to know but also to remember. Our communities are based on a history, a memory to preserve and to recall. From the inscriptions of stories, archives are constituted in order to trace history. Of course stories vary and can be

¹³⁸ Jean Baudrillard, Simulacres et Simulations, op. cit., 10.

personal or official versions of individual or collective events interpreted according to a certain point of view. Nevertheless, archives are passed on as the memories of a given community that must be preserved in order to give a sense of humanity and of the existence of a community's past.

Even in the illustration of a cult science-fiction movie like Ridley Scott's *Blade Runner* (1982), the non-human "cyborgs" or "replicants", who can be distinguished from humans because they do not possess a memory, try to invent personal souvenirs. To pass as human beings and avoid being persecuted, they have fictional memories implanted. As the "replicant" Tyrell designer explains to the blade runner, Rick Deckard (played by Harrison Ford), humanness is about having memories of prior experiences:

- Store up the experience you and I take for granted.
- We create them with a past, if we gift them with a past, we create a cushion
- a pillow for their emotions.
- Memories -you are talking about memories 139

When questioned about their past, "replicants" regurgitate images and share a non-existent past by using pictures that must pass as their personal memory. Here we are not faced with a human being who contrabands data preserved in his brain by the use of a chip implant, but with a cyborg loaded with memories trying to be more human. Sharing pictures as if they were memories allows for Scott's

¹³⁹ Blade Runner directed by Ridley Scott, 1982.

memoryless cyborgs to pretend that they are human and thus take part in a life in a human community.

Let me take a parallel link to illustrate how today, even in an information world fully aware of computer manipulated photographs, it is still primordial to have authentic pictures to "Share moments, share life"TM, as in the slogan of the Kodak picture company. In their Share Life campaign, launched in 2001, the Kodak Company promoted sharing life's most precious moments, or shall we call them memories, through pictures. It is interesting to see how even an advertising campaign focuses the promotion on "sharing lasting memories with the next generation with friends and family through e-mail" and even "to share and connect" as is specified on the Kodak web site. This company, in the business of people taking pictures as a practice of keeping memories, has essentially the same slogan for all the portals of the different countries where it distributes products. The French site says: "Toutes vos émotions se partagent en images" and the French site for Canada uses an adaptation of the English slogan: "La vie se partage en images." This example illustrates that whether the memories are moments of life or emotional events, a community of friends and family must share them.

With memories, pictures or cultural products to share, a community can form a sense of belonging. Whether in harmony or even in conflict, what imports more is the question of continuity. In an electronic community there is continuity as long as one shares a conviction or an interest. Here there are rules to follow, too. In the

hyperreal network worlds a person often takes part in several communities easily entered and left. These communities remain alive as long as someone writes an email to a listsery for example, and as long as someone else has asked to be subscribed to the list in question.

A community, for example, one created on a listserv is an automatic mailing list server where e-mails are addressed to and is automatically broadcasted to every member on the list. The person who is responsible for the list often moderates it. This kind of list is similar to what is also called a newsgroup or a forum, where the messages are transmitted as e-mail and are therefore available only to individuals that have subscribed to the lists. On the Internet, listservs, newsgroups or forums, and other on-line discussion groups are thousands of groups covering every conceivable interest or subject.

According to Benedict Anderson in *Imagined Communities*, ¹⁴⁰ the identities of nations have been constructed by the press; thus identities are products of the text. Traditionally, knowledge tends to want to classify communities according to a principle of truth and to associate them to a real space. The memories and roots of a community are kept in a public imaginary.

In an "imagined" community the social and political interactions are negotiated by a medium. In fact, in a hyperreal or virtual community, the social and political interactions are negotiated inside the medium itself. This interaction within the medium is precisely the difference between a mass medium and a network medium like Internet. One is forced to interact by clicking hyperlinks with the computer mouse or by the use of the keyboard. The mouse and the keyboard are the new writing tools and the computer, the new reading frame vital to the formation of a virtual community. Contrary to traditional communities, virtual communities are independent of time and space. Yet one still needs to assign them places, for example, the digital city and the public chat rooms. Therefore the concept of place plays a role in the virtual communities, while space is more a question of a reference mark because one can participle according to one's wish. Events are furtive and momentary especially when they are often experienced by reading on the Net and sometimes by writing when participating in the discussions or disputes that disappear as quickly that they occur.

A majority of people in virtual communities have periods of both intense presence and absence. If one has not logged on the Net lately and has been absent for a long time, the members of the Net community will likely have changed, discussions will be different or repeated. To say that one only communicates on the World Wide Web would be too simplistic. In virtual communities, one does the same as in other communities, that is, work, learn, play, meet, gather information and even fall in love. It is often a combination of learning and playing.

¹⁴⁰ Benedict Anderson, Imagined Communities: Reflections on the Origin and Spread of

Do virtual communities create their own reality and are they imagined according to Anderson's analysis? In a way, yes, because they are represented by a medium that has such strength that it can make the Net reader believe that she is living a life more or less institutionalized outside of the medium. But at the same time, one does not manage to freeze these virtual communities because their existences are represented and constructed by a digital medium. Even though newsgroups have etiquettes and rules of conduct, or what is called "netiquette" that one can find in the FAQ's (frequently asked questions), as well as an archive of prior discussions, they are, however, not institutionalized outside of the virtual medium. They are in fact still lived outside the established society, and if they may have seemed at first to be imagined in their virtual character, they are in fact not imagined communities in the sense given by Anderson but actually quite real – or shall I say hyperreal?

A common member of the hyperreal communities is called a "lurker", ¹⁴¹ living in the real world; the lurker hooks on to the Internet but remains an invisible and silent member of the virtual communities. He browses web sites, or reads

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Nationalism (London, New York: Verso, 1991)

From the *Flame Warriors comment webpage*. I quote a definition of the lurker, see http://www.winternet.com/~mikelr/flame58.html: "Lurker does not participate in normal forum discourse, but he's out there...watching, reading every message. Generally, he is quite harmless. In fact, his silence usually reflects a natural reticence rather than any sinister motives. He is content to let the other people haul the conversational freight and, if a fight breaks out he will observe quietly. Occasionally, however, some mysterious impulse drives him to de-lurk and attack. Other Warriors regard his unexpected assault as an ambush, and invariably turn on him savagely. But Lurker seldom sticks around to fight it out, rather, after a brief exchange, he slips away, never to be heard from again."

'weblogs' or enters chat rooms without participating. 142 He remains very individualistic.

However, cyberspace would just be a bunch of data if people did not participate. Similarly if discussions did not occur, there would be no web-based communities. Of course, there need not be a steady collective link nor any engagement because a lurker always has the possibility to enter and leave without being noticed. One can speak of a virtual community when there has been an adherence and when there is a certain continuity in the discussion even though the membership is rather taken by pseudo-anonymity or through partial identity for as the popular saying goes: "On the Internet, nobody knows you're a dog", which was first published in a cartoon in *The New Yorker*. 143

A weblog (sometimes shortened to blog or written as "web log" or "Weblog") is a web site of personal and non-commercial origin that uses a dated log format and is updated on a frequent basis with new information about a particular subject, the information can be written by the site owner, or contributed to by gleaners. A weblog is often a kind of "log of our times" or a sort of diary. Weblogs can be thought of as developing commentaries, individual or collective on particular themes.

The cartoon by Peter Steiner shows a dog is seated at a computer, telling another dog: "On the Internet, nobody knows you're a dog", cartoon in *The New Yorker* (Vol.69 (LXIX) no. 20, July 5, 1993, page 61). On a tangent, *Nobody Knows I'm a Dog* is now also a play by Alan David Perkins a New Yorker who has recycled Steiner's cartoon in a play in which six people who are unable to connect to other people IRL (in real life) find the courage to socialize by joining a singles newsgroup on the Internet, taking comfort in knowing that they will not be seen and can hide behind lies.

A Lurker's Memory

Now let us consider the example of the 'newsgroups' or 'listservs', where an Internet-goer can take part in several lists and where the members are often a considerable number of 'lurkers', who only receive the e-mails posted on several lists, acquiring a scattered multiple membership. These voyeurs coming from of all corners of the globe find themselves in a 'pluri-community' where every interest or desire may receive attention on a list or a site (a practice picked up in cable and satellite TV). Yet, there seems to be only a partial adherence, with a 'netiquette' that tries to regulate intervening on the lists.

This figure of the lurker is that of the hypertextual reader who follows the course of the text with a ferret's curiosity taking her from one text to another in pursuit of the references that she seeks. This may well look like some sort of an investigation in which reading does not only mean finding a yet never discovered document or even the indecipherable allusion never before read. Document consultation on the Internet is not just the search for a scientific discourse. It is a search also to look for a document from which the reader can tell a new story that can be related as something being experienced in the present, not necessarily as an object of study.

Hypertextual assembling becomes a system of recognition and learning but it is often in an intuitive and passionate manner that a reader makes her way through a hypertext. Desire and emotion guide the reader, even though intuitive associations

may seem to lack a certain sense of systematization and traditional educational rigour. Hypertext reading is an experience of mediation; it is an experience of immediacy.

However, how can one really learn if there is no rational model to guide the reader? Learning is not necessarily achieved by means of a canonical system. Explorative and playful aspects can also encourage the quest for knowledge. The growing success of exploratory game videos demonstrates this thirst for investigation experiences. However a question remains when it comes to forming a community: How can a lurker-reader, who just seems to be passing by the World Wide Web, experience a feeling of adherence?

My hypothesis is that the question of identity or of belonging resides in the practice of reading and that the new media networks put us in presence of a new community of readers, which I shall show in the following section. [See section III on Hypertext Reading Links: a Pedagogy of Memory]

A community that corresponds to the practice of hypertext requires a redefinition of the reader's identity. The hypertextual reader is the reader of 'Difference' who follows a reading path according to her desires and her personal curiosity. This reader is looking to be surprised and seeking new and different experiences in the immediate present that are not necessarily canonical objects of study but are

experiences of memory because they evoke souvenirs or associative links to be made.

Our reader chooses a course of reading according to mood. Yet the clicking is not always random, it is often made because one is looking for an answer or at least another connection to explore. This kind of reading is fragmentary, perhaps more oral than textual and not always attached to linearity. A hypertextual reading marks connections between texts through a path of re-cognitions rather than through linear narration. In a hypertext we are more often looking for something as in a data bank, or in looking for an intrigue. Our curiosity is pricked by a question or at least by a pursuit. An intrigue that I conceive like an arrangement of facts in the manner described by Paul Ricoeur in his analysis of the Aristotle's *Poetics* as a 'mise en intrigue' 144 which he sees as the muthos. Like the Greek muthos or story, hyperlinks are the arrangements from one link to another. Hypertext allows the mediation between different textual, visual or audio documents. The movements from link to link create an intrigue. In hypertext, what is important is to pass from one knot rather like a link unravelling itself when one moves to the next one.

But what are our expectations when it comes to hypertext? Do we want to be told a story? Are we looking for a chain reaction? It is the action of creating an intrigue that is important and not the narration itself for it is the investigation or quest that matters. It is this searching that will lead to a new textual path or even to a new

text. When it comes to browsing a hypertext, there is also a corporeality that must be taken into account since the action of the hand as a click on the mouse activates a hyperlink and makes the text move. The body must move and act to be taken physically into an intrigue. It is the finger that points and manipulates how a hypertext is temporarily put together.

Traditionally the reading of a book is organized in such a way that the reader tends to verify the number of pages in order to look for the end or at least, a temporary end. While browsing a hypertext, the reader need not think anymore in terms of a number of pages or screens. The reader is not interested in finishing, in getting to an end but is looking to make links and to gain the impression of movement. The only traces that remain after reading a hypertext are the random links made. By using the 'back' or 'return' link button, the reader retraces her reading movements, or more concretely the web pages that were consulted while browsing. Reading is transmitted through links but it is rather the reading movement that counts. It is not the storyteller anymore who creates the narration but the reader herself becomes the storyteller even if she is caught in the programmer's parameters, she is not depending on the book anymore. Even though she must always choose among the document categories made available to her

¹⁴⁴ See Paul Ricoeur, "La Mise en Intrigue" in *Temps et récit, Tome 1. L'intrigue et le récit historique* (Paris: Éditions du Scuil. 1983).

online or in the menus, from there on storytelling is recovering from its decline announced by Benjamin. 145

However, inside the information network as well as in a hypertextual research, the reader may not always have the possibility to communicate. In this demimonde of meta-communication, the reader often finds herself in the «lurker» ¹⁴⁶ or searching position always looking for..., hiding while waiting for an answer or while spying in on a discussion. The reader-lurker follows, reads but does not communicate.

This reading becomes more a search for an intrigue with no pre-established narration. It is a reading that becomes coherent through links created through fragmentation and collage where the reader does not know whether she is facing short or long texts. Yet there is a limit to what one wants or can read. The relationship to the world is not exclusively textual. In fact zapping and the video-clip culture translate a certain impatience. It is not linear history that counts anymore, but rather the fragments where the reader looks for a quick and a 'right here, right now' moment of surprise. The computer allows a pursuit of traces in relation to each other as a memory that works in a recollection in the hypertext mode.

Lurking is more than to lie in ambush or to be in hiding and waiting.

Walter Benjamin, "The Storyteller, Reflections on the Works of Nikolai Leskov" in *Illuminations* (New York: Schocken Books, 1969), 87.

The hypertextual course permits a 'remembering of memory' through the reading rearrangements made where the intrigue is conceived while clicking. The connections are made by causality, according to one's own taste where the reader can fragment her experiences while being divided in her own individual pluricommunity. With the passing of time, web discussions are even archived or 'weblogued' in order not to always refer back to the same topics but also to constitute a collective memory.

When the Net-reader is more of a lurker and participates in a limited way and a limited membership, she can be exempted from being devoted to any social obligations. How? Oddly enough and despite divided interests, the archives and inscriptions of Net conversations prevent losing parts of the exchange. It thus becomes more efficient than standard face-to-face communication. The partial hyperreal collectivities have several aspects in common with a real community but at the same time, one can enter a virtual community without an obligatory engagement. Yet, if in general a community can be organized around memory recurrences, a hypertextual intrigue can make memory available again by accentuating repetition but also by insisting on different modes of reading. The stress is put on repetition and insistence of information that can be re-configured and re-embedded.

With the new digital technologies, even just reading on the Internet, innumerable digital texts are made available and since the lurker clicks on existing texts, this

allows for the persistence of a memory that is not only textual but can also be visual and auditory

The inheritance¹⁴⁷ available in the archives remains important because there the repeated material takes all its difference or meaning as in Plato's Academy where the archive was the institution of repetition. For even though every repetition is different, it will be catalogued and archived exactly for its difference. Storage is the role of every inscription in which it is necessary to discover a difference. In hypertext, there is a differentiation of links to be brought out and not necessarily a repetition. The instability and the permeability of frames of thought in the virtual mode bring out differences in thought associations even better. While making links the reader-lurker in the practice of hypertext reading, grasps the differences at stake in a text according to her own associations.

Nevertheless, there is something pejorative in the scattered mode of linking. In a definition of 'scattering', there are the following explanations: to throw about, to disperse, to distribute or even to spill. By extension, a 'scatterbrain' is even a person who lacks concentration. Hence, to move around in a digital text seems to be related to dispersion and to being engaged in too various and too numerous activities. Instead of spilling out, reading traditionally required cohesion and narration in a community that would want to fix this scattering by attempting to stabilize links. Fine, but let us acknowledge that with a new literary device like

hypertext and the digital networks, we are experiencing a tension between archiving from the perspective of repetition of memory on the one hand, and differentiation as scattering on the other hand. Indeed, Derrida questions the electronic networks, for example, e-mail, as a way of transforming the public and private space. Transforming archives and recording events are for Deleuze ways of putting the emphasis on singularity and difference. This transformation makes us really live the adherence or membership to a 'pluri-community'.

Finally, the lurker looks in the archives, yet while taking part in a new type of collectivity centered around memory she is also independent and can replace different links as in the term remediation for Bolter and Grusin. Replacement is the essence of hypertext and the web lurker learns to pluralize reading passages in the different communities she comes across in the digital networks and to pass from link to link, in order to be not only in the immediate every time but also to recognize differences and thus go from singularity to singularity, from one community to another in a replacement and scattered dynamics.¹⁵⁰

This does not imply only 're-visiting' archives because the hypertextual reader does not always have the cultural baggage that would allow for links to be made. We are not in the legible or readable of learning but in a game of differentiation

¹⁴⁷ Jacques Derrida, Mal d'archive (Paris, Galilée, 1995).

¹⁴⁸ Ibid., 35.

^{149 [}bid. 34

¹⁵⁰ See Gilles Deleuze, chapter III in *Différence et Répétition*, where he stresses that différenciation is important when it comes to learning and thinking, op. cit., 213.

readings. And like Deleuze, I do not believe that it is about the reader's entering a path of recognition but rather about the reader's scattering and stimulating creation.

We still linger on the text too much, with the reflex of a 'reader-archivist' whereas in the future of the archive, it will be more about becoming a reader-creator. If the reader still mystifies thought too much, she will remain in the practice of knowledge acquisition and will not become a creator of the imaginary, the randomness. In hypertext, the reader does not need to start at the beginning; she only has to be to the middle of a multitude of community memories, and like a hypertext start to think about establishing associative links giving to each dispersion that is made, its difference.

ICONS

Madame Bovary Lost in Reading Memories

Getting lost

Madame Bovary is a novel where the main character gets lost in the labyrinth of her readings. Here we are also faced with a figure in search of hyperreality, losing her identity through her myriad readings.

"Madame Bovary c'est moi!" are Flaubert's iconic famous words. In this novel's free indirect style, the reader can have the impression that it is indeed the character who speaks, that it is she who becomes the narrator, or the median voice. Madame Bovary shook the principles of traditional writing. The novel's narrator is impersonal, objective thus raising the question of whose focus is used. The narrator like a camera travels around and observes; however, since 'Bovarysm' is the desire to be other than what one is, Flaubert's camera serves to deform one's reality and one's subjectivity. Bovarysm or the reading Emma Bovary getting lost in her readings is the will to be different or to live that which cannot be lived. This leads the reader to identify with the characters with whom Emma rubs shoulders. Jules de Gaultier in his Le Bovarysme: La psychologie dans l'oeuvre de Flaubert (1892), described human condition by naming Bovarysm a person's determination to see oneself other than one is.

Poor Emma gives her name to it because de Gaultier finds in her, as in many of Flaubert's characters, a certain predisposition, "a pathological and singular exaggeration of the faculty of imagining oneself to be other than one is." He thinks that the predisposition is at one with a hatred of reality: It is a ruling tendency in Emma, by virtue of which any actual condition of existence arouses in her a contrary conception. The difference between Bovarysm and a worthy use of the imagination is that, in the latter, one conceives an alternative or antinomian reality without proposing to put it into practice, one retains it as a fiction: In the former, one takes it as a program and acts upon it. 151

Literature may bring the reader to see herself as other than she is, but literature is also about the text or the literary institution. Literature is also a tradition, a process of producing texts in the form of a printed book on paper, that gives us access to narrations, various histories and past texts. This literary practice often depends on paper media, of course, although certain stories may find themselves on celluloid, such as screen adaptations of literature or on audiotape for a dramatic narration.

However, often works of art have initially been reproduced on paper to be re-told orally and visually on the screen. It is through their circulation and interpenetration in all modes, either oral, visual or written, that they disperse and penetrate a society already sensitized to narration.

Archiving these stories on paper, as in conserving those which diffuse a collectivity, allows a community of readers to recognize fictional characters and

Denis Donoghue, *The Practice of Reading* (New Haven, London: Yale University Press. 1998), 47-48.

identify with them. To spend even a fleeting moment holding a character's hand allows one both to escape and to observe human behaviour.

However, if, as Virilio says, ¹⁵² we live in the age of speed –a constantly accelerating world– how then can readers find the time to browse through the numerous pages of a book? Texts that require the effort of reading quietly in seclusion may seem to lack stimuli and can fall into oblivion because they will have not been able to catch our attention, simply because it is necessary to take some time and distance to read a book in silence. Literature attempts to preserve the role of an oral storyteller and also tries to organize, as would an archivist watching over our textual memory.

In the end, if texts are not consulted or not remembered, like a book from Borges' imagined *The Library of Babel*¹⁵³ [see section III on Borges' library] , they will stay on a shelf somewhere waiting for their new reader. With the profusion of media allowing for stories to be told, (from movies, through television and radio, but also video games, comic strips and CD Roms), we face a situation of mass production of exactly that which used to be found primarily on the pages of a book, and well within the literary institution.

¹⁵² Paul Virilio, *Vitesse de Libération* (Paris: Galilée, 1995).

¹⁵³ See Jorge Luis Borges: "The Library of Babel" in Ficciones, op. cit., 79-88.

Since the arrival of new technologies, can the question of the perpetuity of a literary work of art on paper still be asked? Questions do arise about our consumer habits and whether we still care to read on paper. Indeed, the reader, spectator or listener is seen as a consumer of narrations. We know that watching a movie requires to a certain extent decoding, hence logically the reading of a text as a movie demands deciphering.

Yet we can go beyond Bovarysm in reading, because the text frees itself through hypertext practices. In fact we believe that the superstructure of a text has always tried to be hypertextualized. The media equipment and editorial surrounding a text are less and less coercive; the access to text is facilitated and accelerates text circulation within an increasingly literate community.

The time has come to question the type of network community that can engender a hypertext. The hypertextual reader must learn to look at the mechanisms of a mediated symbolic economy and render it visible. The textual electronic network communities bring the reader to authorship and reinstore interpretative values. The next example on the hyperreal 'Kindred Spirits' [see the section on *Anne of Green Gables* on the Net] which illustrates just how strong an electronic community can be when it comes to interpreting and making new texts and new readings from one's favourite author.

Many members of the virtual community dedicated to Lucy Maud Montgomery have been lurking since signing on to Kindred Spirits list but after reading the numerous daily posts, they often come out of their retreat in order to tell stories on how they have read and enjoyed Montgomery books as well as having a book of the month that the whole e-community agrees on rereading, retelling and recommenting fairly regularly. Indeed, they reread books they enjoy but also add and share their own relevant personal memories concerning their selected scene, chapter or character.

For Michael Joyce, who has published widely on issues relating to hypertext and writing, reader authorship in electronic text is about rearranging stories, hence becoming both reader and author of a document. "Reordering requires a new text; every reading thus becomes a new text. [...] Hypertext narratives become virtual storytellers." Hence, readers-authors converge towards a new mediated community where they can exchange roles and no longer be divided between producing and consuming. This may lead to a "pluralistic cultures" or a "culture au pluriel" as already seen with De Certeau; whereas, the character of Madame Bovary shows that when a reader cannot share her reading memory with other readers, it becomes difficult to achieve a critical distance because the reader only has to interact with the fiction characters that she reads about to interact with in her imagination, and she creates her memories not from reality but from imaginary events that she has read about.

How does the arrival of new technologies in several systems of exchange and various networks stand out in a "multi-facet identity" of hypertextual readings? Actually, the hypertext reader who does not wish to make any effort of critical reading, who only contemplates a story while identifying with its characters without discernment, risks acting just like Gustave Flaubert's heroine in quest of a narrated life while allowing for no distance with regard to the text. Through her readings, the character of Emma Bovary is a thrill seeker after a passionate love and an extraordinary life. She does not know how to read through or across the possible facets of a novel or to be open, as explained by Bernard Pinguaud: "le propre d'une grande œuvre est d'être ouverte, disponible, inépuisable, de se prêter à d'autant d'interprétations qu'elle a de lecteurs." 155

Contrary to a World Wide Web reader, the web "lurker" can remain a Bovarysm reader because the web "lurker" uses her readings to soothe her eternal dissatisfaction, to enjoy a liberating reading experience. However, anyone who browses through a hypertext can go beyond lurking and create a reading path of ties between the text and subject as well as with other readers, as we shall see in the next example about readers building a community in cyberspace, [see the section on *Anne of Green Gables*]

¹⁵⁴ Michael Joyce. Of Two Minds, Hypertext Pedagogy and Poetics (Ann Arbor: The University of Michigan Press, 1995), 193.

Bernard Pinguaud in *L'Arc*, Flaubert, no. 79, Bernard Pingaud, ed. (Aix-en-Provence, Centre National des Lettres, 1980), 1.

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kindred spirits inspired by the popular Canadian author, Lucy Maud Montgomery, and her character, Anne Shirley." ¹⁵⁶

If the reader is implicit to the text, the text itself is implicit to hypertext. This statement makes sense because hypertext refers back to the text or at least to a reading practice constituent of a text. The navigator of a hypertext creates interaction between textual documents. The autonomy of a work of art is not an issue here for we believe that any hypertext is involved in a community of documents made up of memories, references and meanings. According to reception aesthetics, a reader deciphers meaning while reading a text—an idea that we do not dispute. We do add however, that at a given point where texts cross each other during hypertextual navigation, the reader not only finds meaning but also texts create meaning in the interactions of those documents. They confront their similarities and their specificities in the interstices by both triggering different documents and bringing them together. In this respect, text is never isolated, for in general it has been produced to address a reader or at least to answer another text.

Beyond Reality

The act of reading happens through the relations of interferences, and this practice is fragmented in order to allow the reader to be active and move forward and not just for her to realize her life is mediocre. In fact, because of Bovarysm the reader lives a life of melancholic desires and disappointments. If only she could

¹⁵⁶ Irene Gammel, op cit., 12.

step into hypertext, she could satisfy her desires of being somewhat different and having some activity in her life.

The traditional ferret reader, or lurker, must enter a community of network texts; otherwise she remains in the shadow of her readings and, like Emma Bovary, will only glean among her passive readings always looking for creative and liberating readings. The eternally dissatisfied Emma is the figure of the desiring reader, stuck in her provincial middle-class smallness as well as in her illusions of differentiation.

Emma goes from desire to disappointment. Just like the reader who identifies with her readings, Emma would like in a Quixotic way to be able to live life as in a novel. Emma's impulses are born of her readings of keepsakes, those small romantic albums decorated with engravings and texts, where she finds herself in the imagination of previous role models: "prise dans l'imaginaire des modèles antérieurs." ¹⁵⁷

Alors elle se rappela les héroïnes des livres qu'elle avait lus, et la légion lyrique de ces femmes adultères se mit à chanter dans sa mémoire avec des voix de sœurs qui la charmaient. Elle devenait elle-même comme une partie véritable de ces imaginations et réalisait la longue rêverie de sa jeunesse, en se considérant dans ce type d'amoureuse qu'elle avait tant envié. 158

¹⁵⁸ Gustave Flaubert, *Madame Bovary* (Paris: Éditions GF Flammarion, 1986,), II, chap. 9, 229-230.

Yvan Leclerc, "Comment une petite femme devient mythique", in *Emma Bovary, Figures Mythiques*, Alain Buisine, ed. (Paris: Éditions Autrement, 1997), 20.

This reading woman dreams about being different and experiencing palpitations. Emma pictures ideal models for herself while she reads. Sometimes she generates models of religious women and other times of enamoured women. Her readings serve as a matrix for her future desires. There are in the novel, the traditional references to books and authors, for example, Walter Scott or Lamartine: « Quand sa mère mourut elle se laissa glisser dans les méandres lamartiniens » — "When her mother died she let herself slip in Lamartinian meanders". Although she tries to grieve, Emma is unable to achieve any authentic feeling. Instead, she studies Eugene Sue, Balzac and Georges Sand, to fill her excessive imagination. She prefers reading, devours her readings while remaining continually dissatisfied, and dreaming between lines, constantly looking for matter to consume, "as she envied the overwhelming feelings of love that she tried to imagine through books."

Her thirst for hyperreal worlds ultimately drives her to poisoning herself with arsenic, for she has not been able to free herself from her reading paths. The provincial doctor's wife remains a prisoner of the pages that she reads right to the point when she regurgitates the ink that has killed her.

Elle s'assit à son secrétaire, et écrivit une lettre qu'elle cacheta lentement, ajoutant la date du jour et l'heure. Puis elle dit d'un ton solennel:

Et elle se coucha tout du long sur son lit.

Une saveur âcre qu'elle sentait dans sa bouche la réveilla. Elle entrevit Charles et referma les yeux.

Elle s'épiait curieusement pour discerner si elle ne souffrait pas. Mais non! rien encore. Elle entendait le battement de la pendule, le bruit du feu, et Charles, debout près de sa couche, qui respirait.

⁻ Tu la liras demain; d'ici là, je t'en prie, ne m'adresse pas une seule question !... Non, pas une - Mais...

⁻ Oh! laisse-moi!

- Ah! c'est bien peu de chose, la mort! pensait-elle; je vais dormir, et tout sera fini!

Elle but une gorgée d'eau et se tourna vers la muraille.

Cet affreux goût d'encre continuait.

- J'ai soif!... oh ! j'ai bien soif! soupira-t-elle.
- Qu'as-tu donc? dit Charles, qui lui tendait un verre.
- Ce n'est rien !... Ouvre la fenêtre... j'étouffe ! Et elle fut prise d'une nausée si soudaine, qu'elle eut à peine le temps de saisir son mouchoir sous l'oreiller.
 - Enlève-le! dit-elle vivement; jette-le!

Il la questionna; elle ne répondit pas. Elle se tenait immobile, de peur que la moindre émotion ne la fit vomir. Cependant, elle sentait un froid de glace qui lui montait des pieds jusqu'au cœur.

- Ah! voilà que ça commence! murmura-t-elle.
- Oue dis-tu?

Elle roulait sa tête avec un geste doux, plein d'angoisse, et tout en ouvrant continuellement les mâchoires, comme si elle eût porté sur sa langue quelque chose de très lourd. A huit heures, les vomissements reparurent.

Charles observa qu'il y avait au fond de la cuvette une sorte de gravier blanc, attaché aux parois de la porcelaine.

- C'est extraordinaire! c'est singulier! répéta-t-il.

Mais elle dit d'une voix forte

- Non, tu te trompes!

Alors, délicatement et presque en la caressant, il lui passa la main sur l'estomac. Elle jeta un cri aigu. Il se recula tout effrayé.

Puis elle se mit à geindre, faiblement d'abord. Un grand frisson lui secouait les épaules, et elle devenait plus pâle que le drap où s'enfonçaient ses doigts crispés. Son pouls, inégal, était presque insensible maintenant.

Des gouttes suintaient sur sa figure bleuâtre, qui semblait comme figée dans l'exhalaison d'une vapeur métallique. Ses dents claquaient, ses yeux agrandis regardaient vaguement autour d'elle, et à toutes les questions elle ne répondait qu'en hochant la tête; même elle sourit deux ou trois fois. Peu à peu, ses gémissements furent plus forts. Un hurlement sourd lui échappa; elle prétendit qu'elle allait mieux et qu'elle se lèverait tout à l'heure. Mais les convulsions la saisirent; elle s'écria:

- Ah! c'est atroce, mon Dieu!

Il se jeta à genoux contre son lit.

- Parle! qu'as-tu mangé? Réponds, au nom du ciel!

Et il la regardait avec des yeux d'une tendresse comme elle n'en avait jamais vu.

- Eh bien, là... là!... dit-elle d'une voix défaillante.

Il bondit au secrétaire, brisa le cachet et lut tout haut! *Qu'on n'accuse* personne... Il s'arrêta, se passa la main sur les yeux, et relut encore.

- Comment! Au secours! A moi!

Et il ne pouvait que répéter ce mot - « Empoisonnée ! empoisonnée! » Félicité courut chez Homais, qui l'exclama sur la place; madame Lefrançois l'entendit au Lion d'or; quelques-uns se levèrent pour l'apprendre à leurs voisins, et toute la nuit le village fut en éveil. 159

¹⁵⁹ Ibid., III, chap. 8, 390-391.

As this poignant passage shows, Madame Bovary ate her readings and the awful taste of ink oozes "onto her bluish face"; she perspires the texts of books and like the typesetting letters with which one prints, her teeth chatter as if she were biting a thick press. She exhales like a metallic typing machine and as he reads her written words, Charles realises that ink has poisoned her. « Il bondit au secrétaire, brisa le cachet et lut tout haut! Qu'on accuse personne... et relut encore. » He says that no one should be accused, no one, but the books, and the story goes around the village like wildfire through the grapevine.

This drama enters the village collectivity, just as in today's information age, every anecdote and every piece of news can disseminate itself in an information network. If the telephone or e-mail correspondence had existed in the days of Flaubert, surely Emma's poisoning would have been known by way of telecommunications.

This story of the iconic Emma Bovary has entered the collective memory to define the iconic myth of literature and the difficult relationship between living and living the life of reading:

Si Emma conserve à ce point son pouvoir de fascination et de provocation sur les lecteurs, les écrivains, les cinéastes, si elle possède cette force d'émancipation qui la rend autonome [...], c'est qu'à elle seule elle représente le dernier mythe auquel Flaubert croit [...]. Ce dernier mythe, c'est la littérature. Emma est le mythe de la littérature, la littérature tout entière, telle qu'elle la consomme et la régurgite, à l'heure de sa mort, où les romans

empoisonnés (c'est l'avis de la mère Bovary et du pharmacien) lui reviennent en bouche avec un «affreux goût d'encre. [...] Emma « montre au vif la contradiction majeure: celle des rapports problématiques entre vivre et lire. 160

Contradictions may lead to wishing for a lurker's life in hyperreality, beyond the quotidian tediousness. Hypertextual practices allow the reader to live and to read while transposing herself onto a virtual world. This contrasts with the nostalgic reader of the book who can neither change the course of the story nor involve herself in a reading community. It is this aspect of hypertext that makes the reader's relation to the text dynamic and actually revives literature.

We are in the presence of a desire to be involved not deluded. Metaphorically, the reader will not have to regurgitate ink but will have to use it to free herself from the text. No more being caught in the pages like Emma Bovary! Instead, the reader is in-between the pages, looking through a textual structure of interferences.

With hypertext, we sit on the edge of the text, in multiple textualities, choosing our difference. With Flaubert, Emma's quest to be different caused by her readings leads to her downfall because, as Jules de Gaultier explains in his famous essay, there is a personality failure and a feeling of powerlessness. Madame Bovary starts crafting a role for herself that will allow her to play a lover's dream as she has seen in her books. Madame Bovary sees through the eyes of the characters in her novels and identifies with them. If Bovarysm is the dissatisfaction and disappointment of

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¹⁶⁰ Yvan Leclerc, op.cit., 23.

reality, it is also the quest for desire and the wish to be other by following the written book models, while remaining painfully conscious of life's mediocrity.

Living the Life of Books

Emma Bovary is, above all, a reader who wants to improve her fate by using her readings. Even though ink will spew from her mouth just before death, she will have tried to live the life of a heroine. On the one hand, one can accept her stepmother's view that Emma "reads bad books" – « s'occupe à lire des mauvais livres », – but on the other hand, while living her love adventures she not only contemplates as she reads, but also lives according to her reading models while believing she could stand out by adopting a role. We agree with the rationale of Jules de Gaultier:

[C] est qu'avec l'universalité des modes de la connaissances, l'homme se conçoit propre à atterrir en des régions qui lui demeurent inaccessibles, à posséder un savoir qu'il ne conquiert jamais, qu'il se conçoit né pour des fins qui ne sont pas les siennes, qu'il y a un abîme entre sa destinée et la destination qu'il se suppose, qu'essentiellement, et dans son activité la plus haute, il se conçoit autre qu'il n'est. 161

Looking to be Other, to be different in order to be able to take on a character's role, thus is her mission to be able to live a life of romantic passion. But her life will turn out dramatic and well worthy of a Greek tragedy. The reader that is Emma will become Other while entering the community of novelistic heroes and

Jules de Gaultier [1892], Le Bovarysme, la psychologie de l'œuvre de Flaubert (Paris: Mercure de France, 1921), 51.

heroines. She leaves her bourgeois and mediocre community to become its tragic suicide victim.

Let us come back to our lurker; in other words, to my idea that Bovarysm is impoverished because the lurker does not dare enter and participate in the virtual or so-called network community. Emma dared to enter the life of her romantic ideal; she became the adulterous woman to live an ideal even though she remained dissatisfied. From being a lurker and reader she went on to become the difference-reader or the reader-creator of another life, of another story. She assumes her life as a reader for she takes the community of female characters as a model. Sartre would say of her, that she is the Other-qu'elle est l'Autre-162

This Flaubertian character wants to be different from herself. According to Gaultier, this "otherness" of Bovarysm, is "l'Autre" or "le différent" in modern terms. While trying to be this other, she pokes around trying to make a fuller life. Still dissatisfied and unhappy with her fate, her reading is only fragmentary since she retains only isolated details. At the dead end of her discontent, she keeps exclusively to overriding themes of heroism and tragic passion to be able to choose an end worthy of the theatre. She reads for personal pleasure. Reading has an exchange value as stressed by Jorge Pedraza in his analysis entitled: "Emma's

¹⁶² Jean-Paul Sartre, "Notes sur Madame Bovary", in *L'Arc*, Flaubert, no. 79, Bernard Pingaud, ed. (Aix-en-Provence, Centre National des Lettres, 1980).

shopping."¹⁶³ Emma will end up exchanging her life, preferring an end equal to the dénouement of one of her novels.

While describing reading, after Charles has said that his wife prefers to read rather than undertake physical activity, Léon explains exactly how Emma differentiates between books and reality:

Ma femme ne s'en occupe guère, dit Charles; elle aime mieux, quoiqu'on lui recommande l'exercice, toujours rester dans sa chambre, à lire.

- C'est comme moi, répliqua Léon; quelle meilleure chose, en effet, que d'être le soir au coin du feu avec un livre, pendant que le vent bat les carreaux, que la lampe brûle?...
- N'est-ce pas ? dit-elle, en fixant sur lui ses grands yeux noirs tout ouverts.
- On ne songe à rien, continuait-il, les heures passent. On se promène immobile dans des pays que l'on croit voir, et votre pensée, s'enlaçant à la fiction, se joue dans les détails ou poursuit le contour des aventures. Elle se mêle aux personnages; il semble que c'est vous qui palpitez sous leurs costumes.
- C'est vrai! c'est vrai! disait-elle.
- Vous est-il arrivé parfois, reprit Léon, de rencontrer dans un livre une idée vague que l'on a eue, quelque image obscurcie qui revient de loin, et comme l'exposition entière de votre sentiment le plus délié ?
- J'ai éprouvé cela, répondit-elle.
- C'est pourquoi, dit-il, j'aime surtout les poètes, je trouve les vers plus tendres que la prose, et qu'ils font bien mieux pleurer.
- Cependant ils fatiguent à la longue, reprit Emma; et maintenant, au contraire, j'adore les histoires qui se suivent tout d'une haleine, où l'on a peur. Je déteste les héros communs et les sentiments tempérés, comme il y en a dans la nature.
- En effet, observa le clerc, ces ouvrages ne touchant pas le cœur, s'écartent, il me semble, du vrai but de l'Art. Il est si doux, parmi les désenchantements de la vie, de pouvoir se reporter en idée sur de nobles caractères, des affections pures et des tableaux de bonheur. Quant à moi, vivant ici, loin du monde, c'est ma seule distraction; mais Yonville offre si peu de ressource!
- Comme Tostes, sans doute, reprit Emma; aussi j'étais toujours abonnée à un cabinet de lecture.
- Si Madame veut me faire l'honneur d'en user, dit le pharmacien, qui venait d'entendre ces derniers mots, j'ai moi-même à sa disposition une bibliothèque composée des meilleurs auteurs: Voltaire, Rousseau, Delille, Walter Scott,

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¹⁶³ Jorge Pedraza, "Le shopping d'Emma", in *Emma Bovary, Figures Mythiques* (Paris: Éditions Autrement, 1997), 100-121.

l'Écho des feuilletons, etc., et je reçois, de plus, différentes feuilles périodiques, parmi lesquelles le *Fanal de Rouen*, quotidiennement, ayant l'avantage d'en être le correspondant pour les circonscriptions de Buchv, Forges, Neufchâtel, Yonville et les alentours. ¹⁶⁴

Meeting for the first time with another member of the novel reading community, Emma opens astonished eyes as she recognises an ally in this fellow reader, Léon, who describes quite accurately how life would be lived according to literature. "Immobile, one goes for a walk while wishing for adventure in life as in books." She "uses" like an addict while hoping to find happiness. Nowadays this bookconsumer and compulsive purchaser would certainly click frenetically to make her purchases on the web site www.amazon.com.

While sipping her coffee, the immobile cyber-traveller navigates on the World Wide Web waiting for an event to occur, perhaps one just like the dance where, through circumstances, Emma found herself a simple spectator yet living the event very intensely. Where the souvenir of an event will become for her a nostalgic moment to remember since from then on, she spends her time hoping that it may occur again. In fact Emma's life passes her by as she looks for the big opportunity, the one that would nowadays be seen watching movies or television programs.

Her view is distorted by the melancholy that mingles with her readings. A compulsive reader, she reads too literally and transfers her feelings to her monotonous life. Fascinated, she plays personality and disguise games in a

¹⁶⁴ Gustave Flaubert, op cit., 147-148.

sporadic manner. She will leave her home only in hopes of finding fantasy and entertainment. She goes out to find her lovers, Rodolphe or Léon. When she does not read, she escapes the house in order to live a romance-book life. The only outing that she will make in the company of her husband will be to go to the dance that is a turning point in the novel. The dance will also nourish her expectations and her desires. She will then wait in vain to be reinvited to the ball and will fall into depression after this desire remains unsatisfied.

This dreaming reader will gradually learn not to contemplate her hopes anymore but to act upon them in order to fulfil her desires. She becomes a compulsive consumer, worthy of the "fashion-victim" label of our post-industrial society, the simulacra society described by Baudrillard. Emma would certainly merit top prize as post-modernity's simulacra reader. Emma never finds enough love and possessions in her small-town middle class reality to fill the emptiness of a life lived in search of rosewater saccharine memories.

On the Internet, one can leave the lurking position temporarily when participating in the network by writing messages in forums or joining discussion lists or simple chats. Escaping our daily reality, we have the means through Internet to create a life of fiction to which aspires every Madame Bovary of this world. The timeliness and relevance of such a novel, even in the age of new technologies, may surprise us even though deep down we know that there does not exist only one interpretation of a text. *Madame Bovary*, unlike her heroine's readings, is a book

that one can reread and rediscover today with a certain freshness. The character of Emma wanted to be different by imitating characters. She escaped her reality while distorting it and using her readings as a model.

Emma Bovary désire à travers les héroïnes romantiques dont elle a l'imagination remplie. Les œuvres médiocres qu'elles a dévorées pendant son adolescence ont détruit en elle toute spontanéité. 165

For Emma, books are a world of models to which she adheres. They form a world where she would want to be able to blend into the place of fictional women, if only to free herself from her self-contemplation and her fiction dissatisfaction.

Anne of Green Gables Reminiscing on the Net

Collective Reading Memories

Living among books, Madame Bovary resisted her mediocre life but lost herself and was alone. Another iconic fiction character of Western literature who also wishes "she were a heroine in a book" 166 and has travelled and been transmitted through different media and cultures, is Canadian author Lucy Maud Montgomery's, *Anne of Green Gables*.

L.M. Montgomery's appeal crosses the boundaries of time, age, culture, and gender. Her works are translated into more than a dozen languages; she

René Girard, Mensonge romantique et vérité romanesque (Paris, Grasset, coll. "Pluriel", 1961), 18.

Lucy Maud Montgomery, *Anne of Green Gables* (Toronto: New Canadian Library, McClelland & Stewart Inc., 1992), Chapter 5, 46.

inspires serious scholarly work and maintains international best-selling status with her shrewd portraits, her minute chronicling of Island and customs, and her compelling recreations of Island land- and seascapes.

Montgomery's influence is felt today in almost every area of life on Prince Edward Island -- in education, research, the arts and theatre communities, tourism, land and building preservation, crafts councils, private businesses, and government policies and decisions. Internationally today Montgomery's works are recognized as touchstones for Canadian culture. Hundreds of thousands of people, directly or indirectly influenced by the way of life depicted in Montgomery's writing, visit Prince Edward Island each year. 167

Cultural memory can be transmitted and created through a collective cultural memory, where groups of people sharing a common cultural interest reminisce about a subject or artist that is dear to them. The coming of the Internet has allowed e-mail correspondences all over the networked society. People write to each other about numerous and diverse subjects. The main thing remains sitting down at a computer and reading what others have to say or writing to list members about the knowledge that you have on a certain subject. Here, cultural memories can be created as well as recycled and mostly recalled, because as part of a *listserv*, one becomes part of a cultural group that shares a common interest and shares a memory bank.

Here, reading numerous e-mail messages that are posted to the members of an Internet list may seem a time-consuming occupation or even a waste of time, for depending on the popularity and number of participants to a list, one may receive several dozens of e-mails each day. But, getting lost in one's readings does not

¹⁶⁷ See the description on the cultural importance of the author in the Introduction in *L.M Montgomery and Canadian Culture*, Irene Gammel and Elizabeth Epperly, eds. (University of

necessarily have to be confounding. Getting hooked onto the Internet network can allow a reader to share common cultural memories without having to be in the same actual geographical space. Cyberspace not only creates a sense of place but also a sense of collectivity, as I pour myself a cup of tea, sit down at my desk, turn on the computer, hook on to the Internet, and begin to read my e-mail messages with a warm sense of anticipation.

Voilà: I am in the hyperreal world of L.M. Montgomery. Numerous users of the electronic highways go through these rituals at least twice a day as they enter their e-mail lists. Those signed up to any of the many discussion lists will find their mailboxes flooded with friendly, connecting, and often emotionally charged messages, inspired by the breathless Anne Shirley, who fantasises about inviting her bosom friend Diana Barry to tea:

"Oh, Marilla, can I use the rosebud spray tea-set?"

"I can just imagine myself sitting down at the head of the table and pouring out the tea." 169

There is the immediate intimacy of friends here, as *Kindred Spirits* as this Internet community likes to call itself share their love of the L. M. Montgomery characters, Anne Shirley and Emily Byrd Starr, as well as pictures, and their reader responses to Montgomery's fiction and the films of her books. They also share

Toronto Press, 1999) which the L.M. Montgomery Institute website reproduces http://www.upei.ca/~lmmi/ins-about.shtml

¹⁶⁸ Marie-Laure Ryan, Cyberspace, Virtuality, and the Text, op. cit., 89.

Lucy Maud Montgomery, Anne of Green Gables, op. cit., Chapter 16, 135.

their personal stories, tales about their pets, and their ecstasies and tragedies, email narratives woven in a language of understanding and friendly support.

There are a myriad of L.M. Montgomery-related electronic discussion lists, many of them informal and unmoderated, with members from all walks of life following the discussion threads that often take us far away from the Montgomery focus. There is the Avonlea Village Mailing List, founded in May 1998, where members discuss the *Road to Avonlea* television series based on Montgomery's fiction, but they also welcome any tangential discussion (or TAN, in hyperspace lingo) and "flights of fancy", as the welcoming page tells the visiting guests¹⁷⁰

There also exists the Emily of the New Moon Mailing List, founded in September 1998, as well as the Kindred Spirits list, founded in April 1998. And there is the oldest list, the Kindred Spirits List hosted at the L.M. Montgomery Institute of the University of Prince Edward Island, <kind_spirits.lists.upei.ca>, launched in 1994. All the lists invite their guests to an international conversation, with members from Canada, the United States, Britain, Germany, Finland, Sweden, Japan, New Zealand, Australia, and so on. The only list with severely limited membership access is the L.M. Montgomery list, moderated at the University of Toronto. In fact, its web page begins with a disclaimer that it is not intended for "students and casual researchers". Perhaps it was in response to the chattiness of the other lists, where a sense of non-scholarly intimacy and privacy dominates in chats that often

¹⁷⁰ See on the World Wide Web: http://homepages.infoseek.com/~avonlea_village

revolve around everyday occurrences, that the L.M. Montgomery list was conceived as a home for the "discussion of scholarly and academic topics". Indeed, so determined was the L.M. Montgomery list to keep the chatterers out of its exclusive club that they limited membership to those who have published scholarly articles. No hyperrealist tea parties here!

My discussion here focuses on the lists with open memberships where, in addition to updates about the movies and threads about Montgomery related research projects, the Montgomery aficionado may receive a message like this:

Kindred teas are another popular activity in Kindredland. Tea, you ask? Well, okay, so we generally don't truly have tea, but we just like the sound of it. There have been many such get-togethers of kindreds in various parts of the United States and Canada and many members will try to meet on Prince Edward Island to hold on to what makes Avonlea just the way Lucy Maud Montgomery described it by using the term "Kindred spirits" to define the bond of friendship between people of similar interests. 171

These twenty-first century electronic pen pals like to dream about dresses with puffed sleeves and indulge in sweet childhood memories. It is interesting to note that *Victoria Magazine* in the United States regularly features an advertisement for the *Kindred Spirits* magazine. Yet such Victorian-style fantasies and tea invitations are only seemingly anachronistic: they are sent out by many young members hungry for traditions and thirsting for intimacy and meaningful connection. Note these members take charge in building community.

In their postings, pen pals copy Montgomery's style and, like Anne, identify themselves by noting a belonging to a specific place. They sign their posts with their name, often followed by that of an imaginary place, such as: Autumn Hill, Whispering Sands, Fir Grove, Pansy Palace, Big Smoke, Grasshopper Falls, Turtle Bay, High Winds, Treasuryland, Shaken Pine, Crystal of the Valley, Red Barns, or even Windom Gables or Gray Gables. Despite these flights of fancy, the last two letters of their e-mail addresses often give away their real-life location (ca = Canada; de = Germany; se = Sweden; jp = Japan, and so on).

Reading this myriad of e-mails from different corners of the globe, I marvel at this urge of Montgomery fans to sip a cup of virtual tea while slipping on a Anne T-shirt or straw hat and thus changing identities. Chatting on the Net with other 'connected Kindred Spirits' in a Virtual Reading Room makes like-minded people come together and allows them to talk and live the hyperreality of their favourite fictional world. This is 'Anne of Cyber Gables'— a new space that clearly would not be possible without the relentless transformation of the world into a globally networked and computer literate universe. In this technologically advanced globe, the craving for a hyperreal Green Gables space makes these faithful Montgomery readers communicate with each other and come back for more.

171 See http://webpages.marshall.edu./~irby1/kindred.html

But what is this hyperreal imaginary world present in what is now more commonly called cyberspace? Cyberspace has been defined by the now-classic definition by Michael Benedikt as a

globally networked, computer-sustained, computer-accessed, and computer-generated, multidimensional, artificial, or "virtual" reality. In this reality, to which every computer is a window, seen or heard objects are neither physical nor, necessarily, representations or physical objects but are, rather, in form, character and action, made up of data, of pure information. This information derives in part from the operations of the natural, physical world, but for the most part it derives from the immense traffic or information that constitute human enterprise in science, art, business, and culture. 172

The story of Anne in cyberspace has only begun to be told by cultural-studies scholars. The field of research is still in its infancy. In a 1998 article entitled "Montgomery's Island in the Net: Metaphor and Community on the Kindred Spirits E-mail list", D. Jason Nolan, Jeff Lawrence and Yuka Kajihara use as their case study the Kindred Spirits List (launched in 1994) to distinguish stages of formation of the e-mail community. They write:

Whereas original members were primarily wedded to discussions focusing directly on Montgomery's works and life, interest shifted to [...] what became known as TANs or tangential discussions of personal issues. Members talked about shows they watched, personal events, triumphs, tragedies, and discussed tea parties and other kindredly activities. 173

This community is alive, as these authors emphasize: "The goal is often to construct a meaningful social and virtual environment that reflects or reconstructs

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¹⁷² Michael Benedikt, op. cit., 122-123.

Nolan et al., "Montgomery's Island in the Net: Metaphor and Community on the Kindred Spirits E-Mail List", in *Canadian Children's Literature*, no. 91/92, vol. 24:3/4, fall/winter, 66.

a literary environment and then communicate in real time as if you were a character in a living novel."¹⁷⁴ Impersonating a character in a novel or enacting a fictional plot may be what many participants desire, but they also desire more. In addition to their search for community, I argue, they long for something *beyond reality*. I propose that the electronic mailers are enjoying an odyssey in hyperreality and hyperspace.

Creating Collecting Memories in Hyperreality

Translating traditional reading room activities into an on-line environment, the Montgomery fans of the Kindred Spirits group become involved in Internet communities. In hyperspace, the participants actively create an emotionally charged space. By finding people with similar interests, they claim the electronic space to generate a powerful, nostalgic, sense of home and a feeling of homecoming for themselves. They use the fictional world as their springboard, a world they transform in the here and now of their computer screen and their daily interaction. Whereas in Baudrillard's dystopian interpretation of the media there is no room for communication, the many Montgomery-inspired lists have developed into very busy and cosy virtual towns that lead a life of their own by thriving on both fiction and reality.

In this hyperreal world, then, what exactly is the connection with the original text that sparked the community? The original comprises both the books and the spin-

¹⁷⁴ Ibid., 67.

off films, for it is the films that have sparked many of the lists. Bringing Anne of Green Gables to life in hyperspace is not primarily prompted by a desire to remember a folkloric kind of past. It is often prompted by a desire to revive an emotionally charged childhood and adolescent reading or viewing experience, the source of memories so vivid that they may be recalled in the reader's imagination at a later stage of life in a new space. Alongside the commercial web sites, there are numerous personal web pages hosted by fans dedicated to the promotion of their favourite author and fictional characters, as well as the e-mail correspondences dedicated to L. M. Montgomery through all of which electronic letter writers seek to recreate a feeling, an idea, and an imaginary world. Given the number of messages received daily, it is the intensity and loyalty of these pen pals that allow this hyperreal world to thrive.

What begins in the hyperreal space of quotidian e-mails often eventually prompts the list members to leave their computer for face-to-face gatherings in tea houses. These 'Kindred Teas' take the form sometimes of semi-formal teas, sometimes of casual lunches. Calls for tea parties regularly flash on my computer screen; they are organized in my home city of Montreal, Canada; in Texas, U.S.A.; and even in Sydney, Australia. After the tea party, Montgomery fans come back to their virtual diary and report or post photographs of their gatherings to other list members, who do not live in the same area and so could not attend. They nevertheless form a community, each member assuming citizenship in a large virtual village, the simulated literary space and cyberspace. Take this e-mail post for instance:

Date: Mon, 26 Mar 2001 14:25:04 -0400 (AST)

Sender: kind spirits a upei.ca

To: Multiple recipients of list <kind spirits@upei.ca>

Subject: KS Dallas tea report

ANNE'S BIRTHDAY PARTY TEA REPORT

Seven of us met for tea last Saturday at the Simple Pleasures Tea Room in Grapevine, Texas, which is one of the many cities in the Dallas/Fort Worth metroplex area. It was a rainy, blustery day outside but warm and inviting inside the tea room -- I know I had a lovely time!

Attending were myself, Christy Danger, Melissa Prycer, Barbara of the Bluebonnets, Carolyn Mitchem, Kathleen Boaz and Barbara, a friend of Kathleen. We enjoyed tea, orange-almond scones (with lemon curd or raspberry jam and Devonshire cream), blueberry mini muffins, three finger sandwiches (curried chicken, tuna and vegetable) and then topped that off with Texas brownies and bread pudding with caramel sauce. Yummy!

After tea, we exchanged Anne's birthday gifts. Each person was asked to bring something Anne-related (and with the Anne quote when possible) for exchange. It was such fun to see what each person came up with -- what a creative bunch we have! The gifts included the following:

- -- A tea set including a 2 cup tea pot, mug, teas, cookies, etc.
- -- A pair of miniature pictures of Victorian tea pots
- -- An ice cream bowl, recipe for homemade ice cream and an AoGG pencil
- -- A slate with carrots gracing each corner and "Kindred Spirits are not as scarce as I once thought" written in chalk.

It was a lovely day and we've decided to make this an annual event. Hope to see more of you next year!
All the best, Betsy in Dallas

These meetings are archived in words and pictures in an attempt to translate hyperreality into reality. Indeed, the practice instils collective memory, reinforcing social cohesion rather by an emotional attachment to the group.

Another list member replies to another tea party with this thread highlighting her sense of living hyperreal memories in a virtual community:

Date: Tue, 27 Mar 2001 02:59:02 -0400 (AST)

Sender: kind spirits@upei.ca

To: Multiple recipients of list < kind spirits @upei.ca>

Subject: No Tea For Me

I am here in Virginia, and mourning the fact that there aren't any kindred teas in my area. Being a poor college student limits my travel, so I

can't pop up to Canada or anything:-) I hope that you continue to have them and to have a wonderful time! keep the stories coming! It's nice to know that the kindred spirit is still alive and well!

Meg of Silver Maples

Popping up on the list however, is possible and it is within the hyperreal space of this community that a cup of tea alongside with a memory can indeed be shared. On the Internet, Montgomery fans have made a new path that leads to the imaginary Avonlea. By reading and writing together while sipping virtual and real tea, the pen pals on electronic mailing lists transcend the boundaries of regions and culture, as they come together in order to discuss, as they put it, 'kindredly stuff'.

They are reminiscing and recycling information that creates a collective memory for those who enjoy writing about the books by L. M. Montgomery and their tourist vacations to Prince Edward Island. These correspondences are most often reading comments as if they were participating in a kind of book club, with a book-of-the-month to read. But the stories also include personal biographies and birthday wishes.

Cecily Devereux in the volume on Lucy Maud Montgomery and popular culture directed by Irene Gammel explains how "Anne of Green Gables has been transformed in English-Canadian culture from a popular literary figure to what is

usually described as a 'national icon.'"¹⁷⁵ In her analysis, she hypothesized her iconicity by claiming that Anne Shirley:

has come to serve as a figure who symbolizes the 'nation' itself, as a place and as what Benedict Anderson has suggested is an 'imagined community.' She is shared by a community that collectively recognizes her and, in that process of recognition, identifies itself as a community.¹⁷⁶

Kindred identity is just the most recent of many permutations and cultural recycling of Montgomery's legacy. As Anne Shirley says: "Kindred spirits are not so scarce as I used to think. It's splendid to find out there are so many of them in the world." This quotation often recurs in Kindred Spirits electronic posts. The motto is apt. And so is Anne's fantasized tea party in the earlier quotation, as she "imagine[s] [her]self sitting down at the head of the table and pouring out the tea," an apt metaphor for the tea-sipping Montgomery fan on the Internet.

For the twenty-first century Kindred Spirit, the imagining and re-imagining of the Green Gables space often happens in front of a computer screen, a new space of preserving memory and of permutating the fictional world of Lucy Maud

¹⁷⁵ Cecily Devereux, "Anatomy of a 'National Icon': *Anne of Green Gables* and the 'Bosom Friends' Affair in Irene Gammel, *Making Avonlea, L.M Montgomery and Popular Culture*, (University of Toronto Press, 2002), 32.

176 Ibid.

Lucy Maud Montgomery, op. cit., chapter 19.

Montgomery. A world or a "popular cultural empire" according to Irene Gammel, "that spans the world." ¹⁷⁸

¹⁷⁸ Irene Gammel, op. cit., 13.

III. Hypertext Reading Links: a Pedagogy of Memory

Reading Promotion

Reading plays a vital role in the quest for knowledge and learning. I believe that the coming of the Internet network, and in particular the increased use of new technologies has generated renewed interest in reading. This can be explained by the fact that readers can now correspond through on-line reading clubs with other readers and, moreover, those who want to push their curiosity further can find references and pertinent intertextual reading links. Network reading thus allows for a document to be updated through a hyperlink detour. Also, in a numeric data bank, a text can be made more visible, risking less to be forgotten on a bookshelf. Made available, rescued from oblivion, but also discussed thanks to intertextual networking, the text can be revived, begin a new life and start reappearing in the collective memory. Hypertext, through the renewed consultation of texts that it provokes, can be perceived as a new means of promoting reading. At least, the growing popularity of this dynamic medium leads one to believe this.

Text access through the digital network renders the practice of reading definitely more intensive, since the reader is invited to put the text into movement by clicking on hyperlinks. Hypertext asks for the user's committed involvement. The path that the reader undertakes often starts with a question that will make her look for an answer while pursuing her reading through the hyperlinks that are activated along the way.

Hypertextual reading practice requires a passionate participation that requires one to feel caught up in the game when one lays out a hyperlinked reading path, whether alone, thanks to the available text links, or by way of a virtual reading club, and more particularly through e-mails messages left on electronic list-servers.

At this point, I wish to stress the particular form of intertextuality that is generated by this linking of texts. It functions through references and association of ideas. Reading links discovered through intertextuality and hypertextuality will bring us back to the pleasure of reading made of reminiscences and curiosities. In short, hypertext, which allows for ties to be made, encourages the practice of reading.

Intertexts and Reading Links

For our purpose, let us consider hypertext as an extended network of links, an ample conceptual system, a heuristic "big web", where it is possible to read, write and transmit textual material of variable measurements. From this viewpoint, text digitization enables one to establish an area of non-linear links that allow the set-up of a "relational" type text. For, the "relational" text allows for new considerations and junctions when examining our cultural heritage and its transmission mode. If well constituted, hypertext can reinforce the existing links between several texts and allow for the text to be read and to be opened, or even reread.

Traditionally, text reading is done in a book, which is at the same time an object of

knowledge as well as part of a collection and in a library, functions as the witness of a cultural legacy and of knowledge to be transmitted. Let us take here a definition formulated by Robert Escarpit about the book as the simplest instrument for giving way to an infinite combination of sounds, images, feelings, ideas, elements, or information diffused data but indeed reorganized:

Parce que sous un faible volume il possède un contenu intellectuel et formel de haute densité, parce qu'il passe aisément de main en main, parce qu'il peut être copié et multiplié à volonté, le livre est l'instrument le plus simple qui, à partir d'un point donné, soit capable de libérer toute une foule de sons, d'images, de sentiments, d'idées, d'éléments, d'information en leur ouvrant les portes du temps et de l'espace, puis joint à d'autres livres, de reconcentrer ces données diffuses vers une multitude d'autres points épars à travers les siècles et les continents en une infinité de combinaisons toutes différentes les unes des autres. 179

Even more than the book, hypertextual practice allows us to open a door to a "crowd of sounds, images, feelings, ideas, elements, or information". Each of the cultural material combinations is interconnected, thus intertextual. Hypertextuality reinforces the ties between the different cultural materials, forming a whole that we tend to call "general culture" in the humanities. The practice of hypertext thus becomes a useful educational means for the recognition of intertexts and the teaching of a broader sense of culture because the intertextual relationships can be made apparent if they are integrated into a digital hypertext network.

An intertext is not necessarily literal. It can recall a theme, a tonality, and a rhythm. It is in fact a process that sends readers back to other authors. From the point of view

of the reader, intertextuality is related to her personal culture. The reader can either recognize the allusion or not. The extreme case of intertextuality is that of plagiarism, when someone else's words are repeated without giving any reference. However, one could consider plagiarism like a game between the reader and the author, when the latter wishes to share a common culture. It can also become a parody, when the quote calls for derision. As in a polyphony, intertextuality allows for several voices to be heard in one same speech, by referring to other writers and other texts. Conceiving literature as an intertext demands that the reader know how to decode allusions and connections between several cultural objects and practices.

If all texts are intertexts and if intertextuality is a text, intertextuality by its definition has already existed, at least fragmented somewhere. Jorge Luis Borges in Pierre Ménard, Author of Don Quixote described this phenomenon. Pierre Ménard is explained as a parody of structural literary theory and text theory. In this story, Don Quixote would not be a copy of the Quixote by Cervantes, but would be identical to the one by Cervantes but more subtle and superior to the original. It would be perfect text as intertext, as the analysis, explanation, assimilation, and the total comprehension of the work in a Western-culture sense of catalogued knowledge. This better Quixote by Pierre Ménard is superior because it understands but it unfortunately does not teach creativity only repetition and reproduction.

¹⁷⁹ Robert Escarpit, "Qu'est-ce qu'un livre?", Le littéraire et le social: éléments pour une sociologie de la littérature (Paris: Flammarion, 1970), 273-274.

Instead of repetition, Deleuze in his schizo-analysis uses the figure of the madman, represented by Antonin Artaud, who is able to create while Derrida explains how Artaud's "Theatre of Cruelty" is one where

le privilège devient celui d'une parole se détruisant elle-même, redevenant geste ou ressassement désespéré, rapport négatif de la parole à soi, nihilisme théâtral, ce qu'on appelle encore théâtre de l'absurde. 180

In theatre, words destroy themselves by being reduced to a gesture or a desperate repetition of continuous screams. In the Theatre of Cruelty there is vibration in space through a moving body which becomes a virtual space, a virtual dimension created by the sound of movement and performing voices.

Similarly, for Julia Kristeva, writing is not mimetic but performative; literature need not be seen as representation. In intertextuality, she divides the text along two axes: a horizontal axis, which is the linear connection between author and reader through the text, and a vertical axis, which connects the text to other texts in an anterior literary corpus and the text as an absorption of a reply to another text. There is movement between author, reader, text, and intertext. This movement is the movement of Derrida's "différance," only available as a trace which can be understood by interpretation. The virtual dimension of all possible links exists in the intertextual relations. Through absorption, intertexts are lost 182 and for Borges and Barthes after

Julia Kristeva, Desire in Language: A Semiotic Approach to Literature and Art (New York: Columbia University Press, 1980), 69.

 $^{^{180}}$ Jacques Derrida, "Le Théâtre de la cruauté et la clôture de la représentation", in $L' \dot{E} criture$ et la différence (Paris: Seuil, 1967), 358.

¹⁸² Julia Kristeva, Semeiotikè: Recherches pour une sémanalyse (Paris: Seuil, 1969), 155-57.

him, literature becomes one text, or one book with multiple entrances. This also returns to Borges' labyrinthic *Book of Sand*. ¹⁸³

Intertextuality is a text's interdependence with all texts that have come before and all that will come in the future. According to Kristeva, no literary text is a unique creation. Each text is the intersection of texts which explains why she thought that each text is an "intertext"; she also maintains that the reader looks for intertextuality, and must be aware that each new text is a recycling of something that has already been thought and will be thought in the future.

According to the expression of Gérard Genette, intertext is also a transtextual relation, placed above every text. ¹⁸⁴ It is sometimes designated by inverted commas surrounding a quote, with or without precise references. The allusion, that is, the non-literal and non-explicit borrowing of a reference, can then only be understood if the connection between text 1 and text 2 is perceived. The art of intertextuality lies in the manner that allusions are slipped into texts, and also in the reader's capacity to discover the secret relations of one text to another. Here, there is a double game where the reader finds and recognizes what different texts have in common.

If a text is always perceived in connection with other texts, it is necessary to be able to decode the links between these texts. The intertext can recall former readings

¹⁸³ See Roland Barthes in S/Z (Paris: Seuil, 1970), 12, 19 and Jorge Luis Borges in *The Library of Babel* or *The Book of Sand*.

¹⁸⁴ Gérard Genette. Palimpsestes, la littérature au second degré (Paris: éd. du Seuil, 1982), 7-8.

which take the shape of scattered or fragmented pieces. In a way, the quote becomes a sample, a graft, a cut-out that will form a collage. Besides, intertextuality can either be explicit or implicit. It is up to the reader to understand and to decode the allusion in question. The quote remains foreign to the text and does not belong to whoever uses it. However, it is from the quote that the user, whether she be author or reader, will compose a new text. Tinkering with a text formed by allusion and quote calls for the reader's (t)ex(t)pertise.

An author may employ a reference as a proof or as an example, for it will connect to an "authority" or to a specialist. But the author of the quote is not always identified. Many texts coming from our daily life, in the odd advertisement, newspaper or magazine, include quotes and allusions that the reader is either able or unable to recognize. If the reader succeeds in identifying an insinuation, it is because she knows how to follow a lead that can reveal a certain meaning. The reader will then search the story's or the text's thread (the Latin origin of the word text actually refers to weaving).

Therefore not only do sentences weave themselves, line after line, but so do texts. Even if they are seen as being unique objects, they are referring to each other and mixing within a bigger whole. They are linked and hence overflow from the printed pages into a more virtual ensemble. The encoding of the text supposes the establishment of relations between texts of a greater whole.

A text owes its unity to other texts. In fact it is through links with one document to other documents a text acquires meaning and an identity. As Robert Escarpit, in *Le livre*, *hier*, *aujourd'hui*, *demain* stressed in 1975, the reader-apprentice must have access to several texts, to experience several points of view to be able to develop a critical mind:

Montaigne dans ses célèbres Essais, affirme d'une façon révolutionnaire que le maître ne doit pas exposer une opinion mais plusieurs, afin que l'élève puisse choisir celle qui lui paraît la plus juste. La Culture ne pouvait donc plus être le produit d'un livre unique et intangible: elle devait au contraire naître d'une libre confrontation entre tous les livres. Pour que celle-ci puisse avoir lieu, il fallait donc favoriser la liberté du lecteur¹⁸⁵

If the reader confronts and compares texts, it is in order to challenge them to make them interact, to associate ideas and to establish links. Pleasure in reading stems from the mixing of texts. Moreover the desire to read is similar to that of the *Encyclopédistes* who through analogy wished to be able to jump from one category to another in their *Encyclopédie*. But multiplying links make readability more complex. The environment of the text becomes an implicit commentary that must necessarily be clarified.

One of the most common forms of commentary is the footnote which has a well-coded frame. The smaller font size of a footnote makes it necessarily less readable and, therefore, the footnote is not necessarily considered part of the "body of the text". Yet, along with the bibliography, these footnotes as well as do serve as a guide

for the reader and sometimes constitute the first reference points in reading a document. Through them, the reader can make a preliminary gleaning that allows her to determine if the work is pertinent or whether it rings any bells deserving a closer read.

Unfortunately, in a book, these elements that could serve as reading tracks appear fixed through codification and there is no room left for any comments made by the reader. Except for the hand-written annotations that she can place in margin of the text, the reader is forced to use another document to set down her observations. However, this other document will also have to be printed and published according to the same codes in order to integrate the reading circuit. While confronting texts, the reader must be able to make them communicate with each other and to produce links between concepts, beings, and thoughts. This reading mode that rests on the association of ideas brings us back to one of the fundamental principles of knowledge according to David Hume.

In his *Inquiry Concerning Human Understanding*, ¹⁸⁶ Hume postulates the existence of links between various reflections as for him, there is a principle of connection between the different ideas of the mind. The philosopher also proposed in his *Treatise of Human Nature*, ¹⁸⁷ that thought and imagination are born from analogy

Robert Escarpit and Henri Tissot, in *Le livre, hier, aujourd'hui, demain* (Lausanne: Grammont, Coll. "Bibliothèque Laffont des grands thèmes", 1975), 46.

¹⁸⁶ David Hume, [1748], *An inquiry concerning human understanding: with a supplement, An abstract of A treatise of human nature* (Indianapolis, Indiana: Bobbs-Merrill Educational Pub.; 1st ed. Edition). ¹⁸⁷ David Hume, [1739], *A Treatise of Human Nature* (Oxford University Press, March 2000).

and the comparison of similar examples. The practice of hypertext reading takes precisely the analogue path. The hypertextual path does not follow a set of hierarchical or pre-established ideas; instead it works according to the amount of curiosity, imagination and fantasy in the reader.

Hume's theory, which sets the association of ideas and representations as the principle of knowledge, helps us in understanding hypertext, because this learning process is done in a "passionate" way. Knowledge acquisition is essentially a ludic experience. Learning while being led by playful curiosity encourages an open mind and a taste for research. The invitation to play along is one of the most innovative principles of hypertextual reading. It is about reading at the pleasure of one's preferences and one's curiosity. It is also about participating in a game so that texts can mix in cause-and-effect relationships. When the reader clicks on a hyperlink, the effect can be to create a relationship between two ideas or contexts the reader may not have come up with alone.

We have seen that a cultural legacy organizes itself intertextually and that ideas which are to be transmitted would be incomprehensible without knowledge of this inheritance. Hence, it is important to find an adequate way of teaching intertextual links to transmit knowledge that relies on the acquisition of cultural relationships. This goal might actually be achieved through a hypertext's intertextuality. The new communication information technologies have given an impetus to reading and to texts. In fact, text becomes more accessible a lot faster because it is immediately

available. Again, it also becomes an object that can be studied, read, discussed and scrutinized collectively thanks to reader discussions lists such as *listservs* or, other forums found on the Internet. And so a text may not be separated anymore, isolated in the private and closed printed book.

Hypertext is more a practice than a concept. It is a form of apprenticeship of weaving intertextual links inherent to culture. The reader must learn to establish links and join different readings, not only studious and silent reading practices, but also visual and sonorous practices. To use a computer and to move across hyperlinks requires intensive participation since, once again, it is impossible to navigate on the Internet or through a CD-ROM without a minimum amount of reading.

Just as writing constitutes itself through trial and error, hypertextual reading is submitted to randomness. The reader tries to grasp the text structures. She tries to decipher them and to bring out their details. She follows document fluctuations in order to discover possible points of origin and allusions. To drive out the meaning of an intertext, the reader needs to dare, to have the curiosity to follow different exploration tracks. She thus goes from reference to reference or from one subject category to another. Similarly, hypertext calls for dynamic reading. The reader must necessarily be on the look-out for an intertext since she needs to read to pursue and to question herself before the choice of documents that always constitute for her new reading choices.

In this sense, the hypertextual scan is a new *world where words* meet. Links sometimes lead the reader towards a dead-end, or sometimes towards an anticipated answer. Nevertheless, the reader remains responsible for the course traced through linking, and, in spite of a certain unpredictability, she holds the power to decide and to pursue her wanderings. One can say that the hypertext reader challenges a narrator as does the narrator in Diderot's *Jacques le fataliste* because he need not be subject to the good will of the author who believes that he can do as he pleases and choose to make his reader wait for as long as he wishes before continuing the narration:

Vous voyez, lecteur, que je suis en beau chemin, et qu'il ne tiendrait qu'à moi de vous faire attendre un an, deux ans, trois ans, les récits des amours de Jacques en le séparant de son maître et en leur faisant courir à chacun tous les hasards qu'il me plairait. 188

Randomness exists therefore in the gleaning of hypertextual reading, but it is not in the waiting nor at the mercy of the author; instead the reader chooses her path herself. This involvement stimulates her reading desire, unless her curiosity drags her towards another text because of new references that might pop up and catch her interest. This reading can look like an investigation, where reading allows for the reader to understand allusions or to discover new meanings. It is such a freedom of movement that gives the hypertext user the pleasure of the text.

Denis Diderot [1796], Jacques le fataliste (Paris: Gallimard, Coll. Folio/Classique, 1973), 36-37.

The Pleasure of Hypertext or Reading as an Investigation

The book as cultural product is designated by its cover and its author. Its ideas appear to be those presented by the signatory, before being received and distributed by a reading community. For readers that receive these ideas also contribute to their diffusion. It is then, as says Escarpit, that one can end up having the impression of knowing books that one has never even read, as for instance, through the knowledge of iconic adjectives like Kafkaesque, Proustian, Borgesian or Dickensian as in the fiction of these particular authors. 189

A book can provoke communication and dialogue, but the multiplication of meanings and the possible references inside its pages are what reveal the very nature of the text. For Roland Barthes, the text "is itself the intertext of another text." When affirming in his article titled *From Work to Text*, that "the text is plural," Barthes understood hypertext by intuition long before the apparition of the Internet and what is now known as "network" communication. To repeat his words, "The metaphor of the Text is that of the Network; if the Text expands, it is by the effect of a combinative operation, of a systematics."

Reading a hypertext draws the reader outside this world of paper in which an author's name is written in the foreground, so that she may discover the universe of

¹⁸⁹ Robert Escarpit and Henri Tissot, op. cit., 16.

¹⁹⁰ Roland Barthes, "From Work to Text", in *The Rustle of Language* (New York: Hill and Wang, 1986), 60.

¹⁹¹ Ibid., 59.

¹⁹² Ibid., 61.

the plural text. Following Barthes, a work of art can be seen as only a consumer product, which does not allow the reader's participation. But, then again, the text "requires an attempt to abolish the distance between writing and reading" when entering into the play of the text. That is why I insist here on the notion of pleasure, introduced by Barthes in The Pleasure of the Text (1973),

The pleasure of reading, a onetime or repeated act, does not reside in the consumption of a work of art because the reader participates neither in its writing nor in its rewriting. The pleasure of the text lies rather in the reader's capacity to toy with the text. The text reproduced electronically in a hypertext verily lends itself to toying as seen in Taylor and Saarinen's comment: "Hypertext is a thinker toy." 194 According to Barthes, circulation is important. For him, the social utopia of the text lies in the fact that "it is the space in which no language prevails over any other, where the languages circulate (retaining the circular meaning of the word)."195

If Barthes touches here upon the openness and accessibility of text, he remains, however, unsatisfied because he understands that "the theory of the Text can coincide only with a practice of writing." 196 As he also argues: "Or again: the Text is experienced only in an activity, in a production. It follows that the Text cannot stop (for example, at a library shelf); its constitutive moment is traversal (notably, it can

¹⁹³ Ibid., 62.

¹⁹⁴ Marc C. Taylor and Esa Saarinen, op. cit., 8. [see illustration on page 35] 195 Roland Barthes, "From Work to Text", op. cit., 64.

¹⁹⁶ Ibid.

traverse the work, several works)."¹⁹⁷ Interestingly enough this practice, which allows the reader to take text theory into account while producing text and researching on the text, corresponds precisely with hypertext practice today. This places the reader in front of textual dynamism, as if the book were endless, as if it were taking the shape of traversing underground rhizomes, with unceasing ramifications of allusions and references.

The pleasure of the text comes as a game. In this respect, the reader's participation in the digital text is confirmed by the success of certain computer video games such as *Myst*, *Riven* or *Amerzone*, where the book is simulated and where reading remains essential to solve the enigmas of these video games. In the same way, text reproduced electronically generates a good game, since the scissors-reader can "cut-copy-paste" and, with her virtual scissors, cut out what she wishes in order to introduce, to copy, or even to delete some passages. She does not have to feel left out of the production of the text for she can indeed participate in creating it.

In a hypertext, the reader chooses her own course of reading, while being conscious that she is following an endless quest. Yet, clicking is not completely random, the informed reader is always curious about an answer or a new link to explore. Looking for a trail, she changes into a detective, whose curiosity is pricked. Her reading may appear to be fragmented, more oral than textual; her reading is not linear, but works through a course of recognitions indicated in the text. Hypertextual links form an

¹⁹⁷ Ibid., 58.

arrangement that permits the mediation between different textual, visual or audio documents, and the jumps from link to link create an intrigue. In hypertext, it is this passage from one knot to the other that is important, the first knot unties itself when the reader browses to the next one. Reading, as if unravelling and redoing Penelope's tapestry endlessly, is never quite appeared. And even though the reader can sometimes have the feeling of turning in circles, it is more important to make links while giving herself the impression of being within a reading still in progress.

There is here a rationale for quest, where curiosity intervenes, as well as a logic of memory storage, of encyclopaedic appearance. The reader who pursues a hypertextual quest can do it as much for a taste for intrigue as out of a desire for encyclopaedic knowledge, without ever expecting to come up with all the information desired. For the reader, the stake consists of multiple research to be made in connection with other arrangements. But then, what are the reader's expectations in hypertext? Does she need for a story to be told? Is she looking for a chain of events? Reading or the hypertextual path corresponds rather to the reconstruction of a plot without a story. The desire to create an intrigue is more important than the narration itself, for the quest can take to a new textual course that may lead, even to a new text.

In the hypertextual project, texts enter a computerized system; they are not reproduced anymore in a limited number of pages. The reader who wants to read a series of adventures or who wishes to have access to a pertinent reference will be able to click directly to get the wanted document. In a hypertext there is not a complete

work of art: there always remains something possible and incomplete in the reading. Whereas a paper text that calls for immutability, hypertext comes apart, looking rather like a draft with its incoherences and its scraps of text. Hypertext allows the exchange of manuscripts, of a malleable matter that one can handle without having the impression that one is working on the untouchable, enclosed and finished work of art. Hypertextual links liberate one from traditional reading.

Thanks to the electronic text, the reader does not need to interrupt his activities anymore to get hold of a book in a bookstore, or to wait to consult a document on her next visit to the library, while hoping not to have forgotten the reference and that the book will not have been borrowed, or worse, gone missing, in which case she will have to go to another library, while praying that the same story does not repeat itself!

This raises a sensitive point concerning the circulation of books. To ask for access to a text through electronic network questions the free circulation of a highly merchandised product defended by an industry. With the phenomena of fame and intellectual property, it may seem immoral to have free access to a text without the author or the publisher gaining profit from it. However, the author of a scholarly publication whose digitalized text circulates freely on the Internet will have more of a chance to win fame and visibility, and, therefore, to increase her readership.

Hypertextual technology does not necessarily kill the book¹⁹⁸; on the contrary it can increase its visibility and its circulation.

A few questions can be asked: is reading in a hypertext placed under the sign of entertainment, even evolution or preservation? What is the future of text transmission production? Still with a sense of a quest, the reader of a hypertext directs dissatisfaction from some of her readings toward a project of communicative reading, not a Bovarysm *silent yearning* kind of reading but a liberating *Kindred Memory Community* kind of reading.

Coming from everywhere, ideas communicate and interact in the never-ending networks of thought exchanges. Sometimes a thought or an idea finds itself in the electronic mail of a list server and allows voices to be heard and ideas to be exchanged in spite of the silence of reading, thus suggesting the cacophony of multiple networks in the manner of a Borgesian library. The multiplicity of readings causes a diversity of comments that, thanks to the Internet, is settling into new practices of reading: 1) sitting in front of the screen and 2) across the world.

These practices give shape to new reading communities or readings clubs composed of individuals corresponding through electronic discussion lists on culture and literature in general or on a particular author. Interest in this way of reading, one

¹⁹⁸ In the afterword of *The Future of the Book*, Geoffrey Nunberg, ed. (Berkeley: University of California Press, 1996), Umberto Eco recalls the famous Victor Hugo quote from *The Hunchback of*

which questions the circulation of texts on Internet, plus the number of readers on lists sharing their impressions though the exchange of documents and e-mails, as in the case of L. M. Montgomery readers on the Net, makes me argue that reading is not ready to disappear.

Encyclopaedic Memory or a Dissemination Reading Network

Hypertextual writing creates a semiotic blur of cross-referencing. Every word is, in principle, a hot word that is linked to endless chains of reference, which, in turn, are linked to other referential traces. Furthermore, these networks are not fixed or stable but are constantly changing and shifting. The text is no more secure than the author is authorative. By pushing the encyclopaedic ideal to its outer limit, hypertextual networks bring its collapse.

Hypertext is a thinker toy. 199

The encyclopaedia comes from written culture; in fact, its entries are organized in alphabetical order. In Diderot and d'Alembert's project, the goal was to assemble all knowledge so that humanity's memory could be transmitted and that past knowledge would not have been futile and forgotten.

Le but d'une Encyclopédie est de rassembler les connaissances éparses sur la surface de la terre, d'en exposer le système général aux hommes avec qui nous vivons, et de le transmettre aux hommes qui viendront après nous, afin que les travaux des siècles passés n'aient pas été des travaux inutiles pour les siècles qui succéderont ... 200

Notre Dame, "Ceci tuera cela" refering to the fact that "The book will kill the cathedral, the alphabet will kill images", 295. He realizes that the computer will not kill the book.

¹⁹⁹ Marc C. Taylor and Esa Saarinen, op. cit., 8.

²⁰⁰ Diderot and d'Alembert, Encyclopédie ou dictionnaire des sciences, des arts et des métiers (articles choisis) volume 2 (Paris: GF Flammarion, 1986), 40-41.

Attempts to cover all knowledge are still shown today even in science fiction novels as in the following example of Marge Piercy's *He*, *She and It* on Humans living with robots where she has one of her characters travelling the Net:

Often while using the Net in her usual work or relaxation, Shira would simply employ visual or audio. She would be reading menus, talking with the computer, scanning files, just as someone looking up a subject in an encyclopaedia in printed form need not suspend attention to the outside world. ²⁰¹

Alongside the encyclopaedia, inscriptions of humanity's memory had been transmitted on a palimpsest or papyrus used over and over again in the early days of writing to record inscriptions. Palimpsest proves a useful term to describe a hypertext for it also has replacement at its core. A palimpsest may be defined as a document, usually on vellum or parchment, that has been written upon several times. Using this term, Gérard Genette explored the interrelationships between literary works and explained literary devices such as parody, antinovels, pastiches, caricatures, commentary, allusion, and imitation.

Although electronic texts need not be scrapped in order to be reused, writers of computer documents make great use of the copy, paste and delete functions to compose their writings. In a way, hypertexts allow continuous new writing paths as though each new inscription has overridden the previous link. The hypertextual text has been described as a networking connection document system. It works as a

constant changing and multiplying network of associations. Documents that have been computerized can connect to each other when they are either related or linked by transtextual flowing, by being pointer clickable.

Through hypertext, it is possible to make cross-references and, for example, have direct access to associated articles, books or footnotes. Looking up relevant quotations or associations can be done instantly. At least, it need not remain the well-kept secret of a few tucked-away specialists or bookworm learners. Pertinent cultural background information is now easily accessible and also rapidly found with one click of the computer mouse on a pertinent hyperlink. Texts are thus spreading and becoming movable and dynamic.

There is the advantage not only of speed but also of a new dynamism in the moving text that changes shape depending on how it is entered. The text can increase just as it can be cut up or be pasted. A text is always already a hypertext, a network of associations. There is weaving of texts that stops them from being isolated, and makes interaction between the reader and literature possible. In a network of associations, the rhizome seems to suit the definitions that one would want to give to the digital text. But before considering this botanical concept, it is necessary to note that 'hypertext' is related with intertextuality and that the term had already been used in literary theory even before the computer became a new tool and practice for writing and reading.

²⁰¹ Marge Piercy, He, She and It (New York: Alfred A. Knopf, 1991), chap. 31, 276.

In literary theory, it is in Gérard Genette's work of about twenty years ago that the term hypertext appeared in his work on textual relations or transtextual, as he prefers to say in *Palimpsestes, la littérature au second degré*. For the author, later published literary works or 'hypertexts' are transpositions of earlier 'hypotexts.' For example, Joyce's *Ulysses*, a hypertext, can be viewed as a transposition of Homer's *Ulysses* and Virgil's *Aeneid*, which he both calls "hypotexts" or previous major texts. In this definition of hypertext, the transposition is like a case of cultural recycling of dissolving time into immediacy by inserting an original cultural product (a hypotext) into a new context (a hypertext).

Hypertext, as he defined it in 1982, is part of one of five transtextual relations. He defines hypertext as every derivative text of a pre-existing text or of a previous work that either is a transformation or an imitation of the previous text. In the latter, it would be every cultural recycled document. For Genette, there is no literary work that, to some degree and according to its readings, does not evoke some prior text, and in this sense, all works of art are hypertextual.²⁰²

According to Genette's analysis of the *Palimpsest* hypertexts are either a parody or an imitation. Hypertext according to Genette, is every relation or link that unites a text B (which he calls *hypertext*) to a previous major text A (or *hypotext*) on which it

²⁰² Gérard Genette, Palimpsestes, la littérature au second degré, op. cit., 16.

grafts itself.²⁰³ A well-informed reader husks the original text or the hypotext in a already existing hypertext which is referring to a previous text. For Genette, the connections between layers of texts are not sequential in time or in space. Yet, for him, the juxtapositions may not be purely "random" or "meaningless" whereas a current understanding of hypertext through the use of the World Wide Web implies a certain randomness and sometimes a loss of meaning.

Hypertext in the digital sense of the word, constructs itself effectively through textual relations; it makes grafts but not in the sense of a parody or a pastiche. The goal of a hypertext in a pedagogical relationship is to allow readers to become aware of the secret allusions present in a text, to find what has been archived and buried, to bring to the surface what only appears in the eyes of the scholar. It is about wanting to unite what has been dissociated; what has been dispersed and fragmented in the presentation of a text but has been related and brought together through hyperlinks.

Even though a hypertextual network spreads out, or is scattered by 'dissemination' (to use Jacques Derrida's expression), and functions apart – in the margins, it is only to better unite the echoes in a same space of resonance. In illustration, here is an echo coming from Derrida:

Il nous faut maintenant tenter d'écrire le mot dissémination. Et d'expliquer pourquoi, avec le texte de Mallarmé, on a toujours quelque peine à suivre.

²⁰³ "[T]oute relation unissant un texte B (que j'appellerai hypertexte) à un texte antérieur A (que j'appellerai, bien sûr, hypotexte) sur lequel il se greffe." Ibid., 11, 424.

S'il n'y a donc pas d'unité thématique ou de sens total à se réapproprier au-delà des instances textuelles, dans un imaginaire, une intentionnalité ou un vécu, le texte n'est plus l'expression ou la représentation (heureuse ou non) de quelque vérité qui viendrait se diffracter ou se rassembler dans une littérature polysémique. C'est à ce concept herméneutique de polysémie qu'il faudrait substituer celui de dissémination. ²⁰⁴

Derrida wishes to substitute the hermeneutical concept of *polysemy* by the use of dissemination, for according to Derrida, text is neither the expression nor the representation of some truth diffracted in a polysemic literature. Dissemination works well also for hypertext for it has more a sense of movement in space, one that resembles a moving sowing hand clicking on hyperlinks that function like seeds. This allows for dispersed thoughts to germinate in a virtual space of cultural memory. This is not so much to make sense or establish some truth but rather to reopen the ongoing possibility of provoking readings from a compilation of memories that challenges them. Imagine reading as an act involving a photo album that one can flip through or a madeleine soaked in tea; memory similarly returns to the surface and asks for links and points of reference to be made. It is the reader's prerogative to do so or "to follow up".

Unfortunately, perhaps, the reference mark on a digital surface is still modelled on the book, or more precisely, on the printed page of words, images or, both. I say, 'unfortunately', because the model of a sheet of paper from a book is presented as a surface that must be filled according to a set of rules. A page is a surface long since organized according to a closed regulation of characters. Even if the book is a 'small

²⁰⁴ Jacques Derrida, *La Dissémination* (Paris, éd. du Seuil. 1972). 294.

machine', according to Deleuze and Guattari, that functions in relation with other books, it is a closed object that belongs to a system made up of parts, including, preface, dedication, chapters, paragraphs, introduction, conclusion, appendices, postscript, index, table of contents and other divisions that each have a function inside the book. This explains why attempts to create a labyrinthic text are interesting for my topic, because such tentatives all try to extract the book from its mechanical materiality. In *La Dissemination*, Jacques Derrida starts his book *La Dissemination*, with the words:

Hors livre Préfaces Ceci (donc) n'aura pas été un livre

And he continues:

Il y aura toujours un risque, certes, à faire travailler, voire à laisser circuler les vieux noms [...] Mais s'en tenir, pour aller *plus loin*, être plus radical ou plus audacieux, à une attitude d'indifférence neutralisante à l'égard des oppositions classiques, ce serait laisser libre cours aux forces, qui dominent effectivement et historiquement le champ. Ce serait, faute de s'emparer des moyens d'y *intervenir*, confirmer l'équilibre établi. ²⁰⁵

We are still obliged to use the word 'book', or the word 'paper' since the analogy of the book with a digital text is still made automatically. Consider, for example, the following terminological designations: web page, electronic page, and E-book. If we continue using classic terminology, how can we then get out of the book in order to try to explain an approach to documentation that indeed stems from the book but is not a book? Hypertext is only like a book in the sense that it communicates text, but

hypertext is also more than that. It is a call to community since it functions as a flux that runs between different collectivities, their readers and a memory learner.

Hypertext could solely be a very long preface that again according to Derrida, "substitutes a text's monument or a first page stuck on the opening—the first page—of a register or a group of deeds." What he calls a "hors-livre" or something "outside the book" is able to achieve the creation of a network. But what is there to say about a preface, other than that it informs on the state of a question as well as evokes questions related to a topic? On this issue, Derrida refers to Hegel who says that a preface is like talking about something outside that which one is actually discussing. He goes as far as to say that it is small talk. ²⁰⁷ A fragment or a preface can certainly be seen as a sort of chat or E-chatting, but as in conversation and memory recalling, it is not linear and lilypads, while erasing, rewriting as well as dispersing thought.

Recycling Memory in the Rhizomatic Labyrinth

The explosion of media through digitization has affected the capacity of our societies to stock information or archive our cultural practices. This has led to rediscovering, re-connecting and re-using cultural products, and to the accelerated circulation of objects often from closed cultural practices to more pop-culture experiences. The recuperation of cultural objects is, of course, not a new practice.

My translation of: "substitue le monument d'un texte ou *première* page *collée* par-dessus l'ouverture- la première page- d'un registre ou d'un ensemble d'actes." Ibid., 14, n.6.

²⁰⁵ Ibid., 11-12.

However, the proliferation of the different retrieval media has made remodelling images, texts and sounds more accessible to the extent that finding the origin within a resampled piece of work is not always possible. But then again, do we still want or need to know if a cultural product has an origin?

The recycled picture examined here, as an example of recurrence, is a photograph that is used as an object of resistance or protest: it is the over-used picture of Che Guevara [see the section on $El\ Che$] , where I question the persistence of memory in this now over-commercialized poster face.

Through electronic digital technology, documents such as this picture can easily be accessed, for example, by looking for it on the Internet. Once found, the document can be used as well as easily altered. Having access to a multiplicity of documentation allows the user to retrieve and lets him "play" the images. Before the massive use of the computer, one could alter a document by making a photocopy of it. On photocopies, one can draw or write, make comments and easily circulate a document. However photocopies are still rigid and framed objects: once copied, they are altered by hand. Now that we can integrate moving images within a text, or sound, or make use of the copy-paste buttons, documents are being considerably changed without any traces remaining of the original. On that note, let us see how Lanham imagined cultural pedagogy in 1993:

 $^{^{207}}$ My translation of: "le lieu d'une causerie extérieure à cela même dont elle entend parler" or "bavardage de la petite histoire", Ibid., 16.

All of these machinations upon greatness are pedagogical techniques that open literary texts to people whose talents are not intrinsically "literary," people who want, in all kinds of intuitive ways, to operate upon experience rather than passively receive it.²⁰⁸

The use of the Internet in the years following the publication in 1993 of Lanham's book has increasingly become part of cultural practices. Participation based on different media –text, image, film and sound– lies at the heart of progressive teaching in the humanities nowadays. Hypertext thought and practice allow for a diversity of intertexts and documental relations to come about starting from a single work, topic or idea and then to proliferate into a web of *remediation*. In the hypertextual labyrinth, intermedial practices rethink and influence our learning instruments.

The labyrinth in the analysis of Umberto Eco appears threefold where it can either be a thread, a tree or a rhizome. Given that one of the ways of approaching hypertext here was to consider it as an open work having multiple interpretations, it was explored as a labyrinth. 209

Like Borges, Umberto Eco provides a perspective on the rhizome as follows. The theoretician of the open work and its multiple interpretations dwells on the labyrinth. He also uses Deleuze and Guattari's rhizome to attempt an explanation of his artistic work in his *Reflections on The Name of the Rose*, Eco has described in Borgesian

²⁰⁸ Richard A Lanham, The Electronic Word, Democracy, Technology and the Arts, op.cit., 104.

fashion, a library-type labyrinth both in his theoretical work *The Open Work* and in his novel *The Name of the Rose*. In *The Open Work*, Eco analyses James Joyce's work and quotes Edmund Wilson in his description of *Ulysses* in order to illustrate how one can enter the work anywhere:

Edmund Wilson has observed that, like Proust's or Whitehead's or Einstein's world, "Joyce's world is always changing as it is perceived by different observers and by them at different times."

I doubt whether any human memory is capable, on a first reading, of meeting all demands of *Ulysses*. And when we reread it, we start in at any point, as if it were indeed something solid like a city which actually existed in space and which could be entered from any direction-as Joyce is said, in composing his books, to work on the different parts simultaneously. ²¹⁰

This is where Eco's quote from Wilson ends, but in the experience of all the senses that are of interest in this study, I wish to add another sentence from Wilson's same page: "We possess Dublin, seen, heard, smelt and felt, brooded over, imagined, remembered."²¹¹

Through these quotes, we can see how understanding James Joyce's *Ulysses* has often, even traditionally, contributed to explaining the function of hypertext. One works effectively on several parts at the same time while trying to read an encyclopaedic entity or total knowledge document but also while reading different parts that can stir several memories and sensations in the reader's mind. Continuing

²⁰⁹ See Ilana Snyder's *Hypertext The Electronic Labyrinth* (Melbourne: University Press, 1996).

²¹⁰ Umberto Eco in *The Open Work* (Cambridge: Harvard University Press, 1989) 23. He is quoting Edmund Wilson in *Axel's Castle* (London-New York: Scribner's Sons, 1931), 210 from the 1950 edition.

²¹¹ Ibid.

his line of thought in *Reflections on The Name of the Rose*, Eco described the world as a labyrinth where there are three different passageways.

The first is the one where the reader is guided through by Ariadne's thread. Ariadne gave this thread to Theseus in the Labyrinth built by Daedalus in classical Greek mythology. He let it unwind through the Labyrinth of cave passages so that he was able to kill the Minotaur and find his way back out. Holding such a virtual thread, the reader of a classical labyrinth enters a text knowing that while going towards the centre of his reading, he is not going to get lost because there will always be an exit or a main narrative to follow.

The second type of labyrinth, still according to the author of *The Name of the Rose*, is still like a thread or a path that one must follow; he calls it the mannerist tree labyrinth:

Then there is the mannerist maze: if you unravel it, you find in your hands a kind of tree, a structure with roots, with maney blind alleys. There is only one exit, but you can get it wrong. You need an Ariadne's-thread to keep from getting lost. This labyrinth is a model of the trial-and-error process.

What Eco says about the third type of labyrinth is important to this study for he picks up the rhizome concept as being a labyrinthine network that is not only potentially infinite but also without any centre:

²¹²Umberto Eco, Reflections on The Name of the Rose (London: Secker and Warburg, 1985), 57.

And finally there is the net, or, rather, what Deleuze and Guattari call "rhizome." The rhizome is so constructed that every path can be connected with every other one. It has no center, no periphery, no exit, because it is potentially infinite. ²¹³

Here, even if Eco still holds onto some form of organization, he is starting to acknowledge that structure cannot be definite because the labyrinth is potentially infinite and following his theory of interpretation, reading brings up infinite possibilities of comprehension. In the textual labyrinth, reading and memory are linked—even though the reader may sometimes feel disoriented when meandering the labyrinth from reading to memory. Labyrinths are indeed linked or woven like texts.

However, hypertext is open-ended and is designed to grow and change while reading through the maze of information available on the Internet. The reader thus spins her own Ariadne's thread. Consultation of hypertext collaborative projects in several cultures and fields of study creates pluridisciplinarity. In search of plural and collective memories, readers browse cultural practices that are found solely in printed books. They consult cultural objects that are also kept and memorized digitally and can be studied on the surface of a computer screen, where memory organizes itself in a manner that we call hypertextual.

Still, in a classic view of memory, like the mnemonic practices presented in Yates' study on *The Art of Memory* are mental pictures of places where one must place

²¹³ Ibid.

objects mentally in order to remember them, to have a memory of them. Following this analysis, we imagine the Internet, or what is sometimes called cyberspace, as being a space where we can indeed have a mental picture of what memory is. In cyberspace, positioning objects in order to recover them later is accomplished by highlighting them with a bookmark or a link in a browsing software. The personal computer itself functions as a mnemonic space as it serves the purpose of a memory place. It is a kind of *memory-aid* for our various thoughts and stories. It can save and stock letters, autobiographical writings, a diary, scholarly writings, our timetable as well as our finances or even newspaper articles found on the World Wide Web with our comments or someone else's alongside reviews of the latest best-seller. In short, hypertext network is a place of mega-memory, a mental extension of a mnemonic theatre where objects can be kept, discovered and manipulated. It is an infinite place where memory and oblivion converge.

Hypertexts are indeed made of broken links and dead ends for us readers; however this fragmentary nature encourages us to draw upon our creativity. Disorganized or not, memory makes us think of its counterpart, forgetting. It is important to stress that there cannot be memory without memory loss and losing track of where one was. Therefore, if hypertextual practices are akin to memory, one must consider that alongside the links, one will find ruptures and gaps and that they are there to oblige the reader to think creatively.

ICONS

Borges' Library

Caught up in a Book

Many studies have touched upon the parallels to be found between hypertext and the work of the Argentinian author Jorge Luis Borges, who questioned the conception of cultural practices and documentational relationships. ²¹⁴ In explaining hypertext, Ilana Snyder in paralleling hypertext and the labyrinth even stresses that authors like Borges were at the origin of the creation of hypertexts:

The notion of hypertext originates in the imagination not only of scientists but also of literary visionaries. In a story called "The Library of Babel", the Argentinian writer Jorge Luis Borges imagines a library of incomprehensible immensity ...

For Borges, literature is a dead end, an impasse, because of its commitment to single story-lines, denouements and conclusive endings. ²¹⁵

Borges wrote books about books and saw them as having neither a beginning nor an end. The combinations network within his description of *The Babel Library* produces a phantasm of totality and recalls the archetype of the labyrinth as memory's network.

²¹⁵ Ilana Snyder, Hypertext The Electronic Labyrinth, op.cit., 28-29.

Landow even speaks of Borges as the "Vergilian guide to these electronic (hypertextual) explorations", see *Hypertext 2.0*, op. cit., 260.

In his short story, "Pierre Ménard, Author of Don Quixote", Borges shows how books are always a rewriting of some time and place. This short story solely based on footnotes and references shows how literature functions as a text culture based on other texts. In fact, it does not matter who wrote *Don Quixote* – Cervantes or Pierre Ménard – as long as a text exists which speaks of the importance of text links and not so much of the importance of the author. Borges founds a reading of *Don Quixote* on the basis of intertexts that the text itself has inscribed.

Borges opened up the issue of the resistance of memory, when he wrote his *Ficciones* announcing (without ever encountering them) the advent of networking knowledge transmission. For Borges, the object of knowledge is often portrayed in a book. He places this book in a labyrinth-prison-like library or portrays the book itself as an object that makes the characters lose any trace or point of reference. Instead of finding memory within the book, the readers shown in Borges' fictions forget their memory or get confused by their rememberings. As if to illustrate that whatever the reader searches or reads, she still has not found – and probably never will find – what she is looking for.... As is shown by his character Funes, the man with a prodigious memory, who has recollections of everything perceivable will declare: "My memory, sir, is like a garbage disposal." 216

For Borges, the world itself is made up of stories where humans are seen as being readers in a search of things lost. "The universe (which others call the Library) is

²¹⁶ Jorge Luis Borges. "Funes, The Memorious", in *Ficciones*, op. cit., 112.

composed of an indefinite, perhaps an infinite, number of hexagonal galleries ..."²¹⁷ From the idea of possibly accessing to universal knowledge through the myriads of networked hypertext, I wish to consider the idea of a library of the future, which Laverna Saunders called a "library without walls". Looking at the literary works of Borges and Umberto Eco, I selected the idea of the Babel labyrinthian library in order to grasp what exactly constitutes hypertext practices. Reminiscent of Borges' thinking that all books are already written and already connected, hypertextual thinking relies on the fact that cultural practices are also like an open work and may possibly all be connected in a network. The network portrayed through hypertextual links reminds us of Derrida's notion of écriture. ²¹⁹ In fact, in the *Grammatologie* ²²⁰ Derrida sought to break up the conventional logocentric linear individual introducing the notion of the Other into the subject for plural dimensional thought. This is what he called the space of the *archi-écriture*. ²²¹

In the spirit of a Borgesian Babel library, let us remember the obvious classic authors who have contributed to the idea of a memory based on books as giving access to an open text allowing for the total text to occur. These authors are Mallarmé, Joyce and Borges, but also Diderot and d'Alembert in their *Encyclopédie* project where text and image were to refer in an associative manner. Mallarmé's plan together with Borges', aims for the dissemination of knowledge in order to avoid the

²¹⁷ Jorge Luis Borges, "The Library of Babel", in *Ficciones*, op. cit., 79.

²¹⁸ Laverna M. Saunders, *The Virtual library: visions and realities* (Westport, CT: Meckler, 1993).

²¹⁹ "L'idée du livre, c'est l'idée d'une totalité, finie ou infinie, du signifiant… L'idée du livre, qui renvoie toujours à une totalité naturelle, est profondément étrangère au sens de l'écriture." Jacques Derrida in *De la Grammatologie*, op. cit., 30.

obsession of assembling all knowledge that haunts the organised library. For Jacques Derrida in *De la Grammatologie*, ²²² pictograms are star-shaped systems referring at the same time to an object and to a sound where Mallarmé's *poétique graphique*, or, graphic poetry, says Derrida breaks with Western writing traditions. ²²³

Similarly, according to Maurice Blanchot, even though the book may seem easily open to the one who seeks knowledge, in fact it is neither accessible nor available.

Mais le livre n'est pas fait pour être respecté, "et le plus sublime chef-d'œuvre' trouve toujours dans le lecteur le plus humble la mesure juste qui le rend égal à lui-même. Mais, naturellement, la facilité de la lecture n'est pas elle-même un accès facile. La promptitude du livre à s'ouvrir et l'apparence qu'il garde d'être toujours disponible - lui qui n'est jamais là- ne signifie pas qu'il soit à notre disposition, signifie plutôt l'exigence de notre complète disponibilité ²²⁴

Along the same lines, Christian Jacob, in his analysis on libraries continues thinking that if all knowledge in the library maze were to be linked, we would lose a sense of meaning or be faced with pure transmission failure:

L'histoire des bibliothèques est habitée par le mythe. Babel et Alexandrie sont deux pôles fondamentaux de cet imaginaire.

D'un côté, l'empire des signes, avec ses jeux de miroir et de mise en abyme, ses liens hypertextuels qui se déploient en labyrinthes échappant, pour finir, à toute maîtrise intellectuelle: la bibliothèque comme métaphore de l'infini, du temps immobile, de l'immense synchronie de tous les mots et pensées jamais formulés, au risque ultime de la perte du sens et de la référence.

De l'autre, l'incendie, la ruine, l'oubli, la mort: la bibliothèque ou le cauchemar de la destruction, la hantise de l'irrémédiable, l'interruption brutale de la transmission. [...]

²²¹ Ibid., 99.

²²⁰ Ibid., 140.

²²² Ibid., 136.

²²³ Ibid., 140.

²²⁴ Maurice Blanchot, Le Livre à venir (Paris, Gallimard, Collection Idées, 1959), 133.

L'histoire des bibliothèques, depuis les salles d'archives des palais orientaux jusqu'aux bases de données accessibles en ligne sur Internet, est aussi celle de la métamorphose des lecteurs et des lectures, des politiques de maîtrise et de communication de l'information. Et du lent processus par lequel la fonction archivistique et les symboliques de l'accumulation sont devenues instruments de recherche, fondant l'ensemble des méthodes du travail intellectuel - historique, scientifique, philosophique, philologique... ²²⁵

Not just readers but humans in general have the need to be linked, to be in touch with not only memories of the past but also other beings. The library keeps us in contact with human thoughts from the past. As do all the electronic devices that seem to submerge us, including, cellular phones, beepers, e-mails, to name just a few of the cultural electronic ways to be connected and to make sense of our lives.

Metamorphoses does not only take place in the library as said by Jacob above, we are also changed by the other media in the experiences that take place and are just as memory making. Live media data and *reality show* experiences inundate us when connected to electronic media, cable, TV, radio, and newspaper databases.

The storage of printed texts presents a certain inaccessibility, as Jacob points out the effort that must be made to access archived data. Nonetheless, the Babel Library is not necessarily there where the book is left forgotten. Even though the Tower of Babel and the diversity of languages is the sign of confusion among men in the classical Judeo-Christian tradition. In a numeric library there operates a cultural recycling process where one recovers the text in order to transform its matter.

Contradictorily, since materials are quickly available, they seem more accessible. Digitization makes text and document processing as well as modifying easier and, recovered text will thus start appearing anew and reappearing in the collective memory. This is the point where information and education must intervene. Cultural web site creators introducing document links must stop and think about the document connections to be made in accordance with intertextual references. Recycling can result in information overload and information underuse (I.O.I.U) with no care for sorting, or selecting according to pedagogical preoccupations or course-guided information.

With Babel, and the separation of languages, there is the fear of incomprehension, of bad knowledge transmission as well as the fear of loss and oblivion. The picture of an ivory tower or architecture that would rise to highest of heavens, where all human beings would understand each other has always been utopian. Babel or the Hebrew balal, means to confound just as the Lord is supposed to have confused the languages spoken on Earth so that knowledge sharing seems difficult to achieve. Of course, understanding is not only acquired through language nor only through the spoken or written word but also traditionally through the use of images.

Here I wish to mention Anne-Marie Christin's L'image écrite, ou, la déraison graphique, a book that reminds us that writing was born from images or from the

²²⁵ Christian Jacob in Le Pouvoir des bibliothèques, La mémoire des livres en Occident, Marc Baratin

ideogram system and not just from languages being spoken. Like her, I agree that it is important to stress that culture and memories attached to a culture are effectively transmitted through iconic images.

Christin uses the term "image-écran" or, "screen-image" to explain the importance of thought provoked by an image. She too, is critical of traditional linear thought because she believes that icons can act as perfect résumés of an idea. Just as a hyperlink tempts to refer to one icon or idea by linking frames, icons are visual condensations of cultural practices.

Characters symbolizing a thing without indicating the sounds in its name, as in Chinese characters or ancient Egyptian hieroglyphs, these pictures of a word or sound could indeed be associated with our electronic use of hyperlinks in hypertextual readings where arbitrariness becomes the driving motion of learning acquisition.

The fragments, the graphics, the words or sentences that we point to , function as polysemic images or a sort of ideogram cluster that we point to with the electronic device commonly called a mouse without even bothering to decipher or to really read anymore. Christin also points out the importance of the writing surface or screen as determining for the access to memory. For, as she reminds us, since Mallarmé²²⁶, we

and Christian Jacob, ed. (Paris: Éditions Albin Michel, 1985), 13.

^{226 [}Link to section I, pages 52 & 83]

have understood the importance of reintegrating the visual and spatial aspect of writing. The screen is the surface that makes appropriation possible.

For Mallarmé, in his *Un Coup de dés*, works of art are constellations of words or fittings as in the term *emboîtement* used by Kristeva in her semiotic analysis *La Révolution du Langage Poétique*. For her, Mallarmé tries to create a split as well as a displacement in order to break up the linearity of a phrase. *Un Coup de dés* becomes a thought that evokes the search as well as the hope for the ideal work of art. Already in his unfinished *Igitur*, he was referring to the thought that the world is only a story being told = *mundus est fabula* = and that with the throwing of the dice he was illustrating how the act of thinking could be seen as a signifying intention.

In *Igitur*, Mallarmé spoke of the act of chance, or "acte où le hasard est en jeu, c'est toujours le hasard qui accomplit sa propre idée en s'affirmant ou en se niant", as being a cyclical movement, in which Mallarmé wanted to achieve total comprehension through a poem by being able to connect different elements that are in relationship with each other. For Mallarmé, it is a research project made up of several fragments that try to resist interpretation as much as possible. The *Coup de dés* shows knowledge is unattainable by being incomplete, but the reader keeps on looking for meaning if only through analogous, inductive and intuitive processes.

Through chance and memory "thought analogies", the reader seeks meaning. This process, like writing, is constituted by multiple tryouts. Reading is also subject to

happenstance. Overall, readings are dependent on reference and allusion where one must dare to follow trails of thought to tease out intertextuality and meaningful indications. As within an encyclopaedic quest, one goes from one reference to another or to different sources, often browsing to the point where one loses track of what one came to look for in the first place, if, of course, we were really out to find something and not just travelling as Benjamin's *flâneur*, stroller, or even lurker through a library.

While discovering a text through reading, the *flâneur*, stroller, or lurker does not always wish to pay attention to a text's logic or structure. With its beginning, its argumentation and its conclusion, a text seems to be framed even if it is part of a totality. Without being reductive, one should still be able to believe that a book is unique and alone as Borges said when claiming the two facts about the works in *The Library of Babel* that should not be overlooked: "One: the Library is so enormous that any reduction undertaken by humans is infinitesimal. Two: each book is unique, irreplaceable." 227

Although a book is alone it is also part of a whole without which it would cease to exist. Yet readers are aware in spite of the frame that text overflows, which explains why they also stroll in a text with no particular goal, even though a text follows and comes from other texts and, is part of a larger group.

Jorge Luis Borges, "The Library of Babel", in Ficciones, op. cit., 85.

As through associations and as mentioned before in the Deleuzian concept of becoming, when A becomes B, it continues to be A, yet it becomes B without transforming itself into B nor into C but is also C [see section I, page 77]

Borges proposes what he calls a regressive approach to locate books because the Library is total and a document exists only because of other texts, "in order to locate book A, first consult book B which will indicate the location of A; in order to locate book B, first consult book C, and so on ad infinitum..."

228

One of the most visible demonstrations of this overflowing is to be seen in footnotes that show how texts really spill over into other texts. Footnotes are part of text coding, because since its existence, text has been organized in various ways. To understand how a text functions, it is not only necessary to know how to read and how to decipher, but it is also necessary to be informed of textual organization.

This is where the reader's cultural practices are essential; she must know the cultural coding and practices of text or otherwise she will not be able to follow its overflowing. A retains its identity within a vast textual field. The referential importance of legibility and understanding becomes most apparent in literary studies.

228 Ibid.

Reading Links in The Library of Babel

It is not sufficient to be able to read. It is necessary to learn relations of intertextuality. Classically, reading has been a game of decoding, of memory and recognition. As in the Latin origin of the word *textus* from *texere*, which means weaving, not just sentences but whole documents intertwine inside of a bigger whole. They refer to one another and that is the reason for which text overflows outside the printed pages that constitute it in order to quote other texts. For Borges, life itself is a quotation as Jean Baudrillard recalls in his *Cool Memories*:

Since he can no longer see the world, he quotes it. His speech is one long quotation. 'Life itself is a quotation', he says. 229

That "life is a quotation" is quoted without a footnote for it does not need one since life itself comes from quotes. As the words of the author are being reported in a study on cultural memories one must do the work for Baudrillard. Luckily, I have search engines to use in the vast world of libraries connected to the Internet. Using the quote and Borges as a search word, I make his books and books about him pop up on my computer screen but I still need to go to a place called a library to be able to check some of the books on my list. As the story continues and must be told, I end up with a book of conversations that took place between Borges and Willis Barstone. Here, written on paper is the leitmotiv quoted by Baudrillard. Guessing that I could find it elsewhere if it is indeed a motto for Borges, I nonetheless decide to quote this

²²⁹ Jean Baudrillard, *Cool Memories* (New York: Verso, 1990), 209.

²³⁰ Willis Barstone, *Borges at Eighty, Conversations* (Indiana University Press, Bloomington, 1982).

reference in order to legitimize it. In order, to be able to say: "See, it's written down here" – so it is true – so I can refer to it as a reference.

Asked by Barstone about growing up in Buenos Aires, Borges replies that he was never interested in this issue as a child, for the places he liked to look at were books and so his memories come from books.

But as a boy, my memories are memories of the books I read. Those are far more real to me than the place itself. So that my memories are really memories of Stevenson, of Kipling, and of the *Arabian Nights* and of *Don Quixote* [...] So what can I say about my childhood? But little. I remember pictures of my forefathers, [...]

My memory is chiefly of books. In fact, I hardly remember my own life. [...] The whole thing is a jumble of division, of images. So that it seems that we are falling back on books. That happens when people speak to me. I always fall back on books, on quotations. I remember that Emerson, one of my heroes, warned us against that. He said: "Let us take care. Life itself may become a long quotation."

We see that Borges picked the idea up elsewhere but made it his own by deciding not to be careful about his quotations, but rather to just quote infinitely until the end, having understood that memory is made up of texts and images. Composed of neverending stories memory is thus entangled in a web of criss-crossing links.

Now, of course I could carry on along this line and try to find out more about this Emerson who told us to take care when it comes to quoting. It must be Ralph Waldo Emerson whom I find by looking through the Internet by typing the search words

²³¹ Ibid., 7.

"Borges -Life is a long quotation" that Emerson in fact said: "I hate quotations. Tell me what you know."

"Being told what to know" can happen through the influences of those who pass on knowledge or through the ideas present in texts. For example, Alain de Botton in *How Proust Can Change Your Life* states the importance of books in our lives. He looks at how authors reveal things that without their pinpointing to them would have remained a secret. His example is of Proust having been sensitized by the art critic John Ruskin to architecture and how reading him helped Proust in discovering a small statue of the cathedral in Rouen:

[W]ithout Ruskin as a guide ("I would not have been clever enough to find you, amongst the thousands of stones in our towns, to pick out your figure, to rediscover your personality, to summon you, to make you live again.") It was a symbol of what Ruskin had done for Proust, and what all books might do for their readers- namely, bring back to life, from the deadness caused by habit and inattention, valuable yet neglected aspects of experience. ²³²

This shows how we need to share knowledge and that reading brings new search trails but that anyone who has already gone down a path and noted it for future readers also creates a memory lane necessary to keep a text alive and prevent it from falling into oblivion. In a way, because of the hypertextual trail created by a search engine or 'browser' on the Internet, documents that are found with the use of a few search words can be seen as a guide that introduces the reader to texts or documents she might otherwise not even realize exist. But perhaps having multiple texts that are

brought to your attention in a hypertext search can lead to feeling overwhelmed by the information overload. (Let us see in the next generation of computer-trained children.)

Again, De Botton in his chapter "Marcel and Virginia, A Short-Story", recalls the reticence that Virginia Woolf had to enter the work of Proust because of its vastness, although she herself wrote in a memory-like manner by using a stream-of-consciousness technique and poetic style:

[O]ut of fear of being overwhelmed by something in the novel, an object she referred to more as if it were a swamp than hundreds of bits of paper stuck together with thread and glue: "I'm shivering on the brink, and waiting to be submerged with a horrid sort of notion that I shall go down and down and perhaps never come up again." ²³³

The immensity of a text, especially when it comes to Proust's work, can also make the reader panic, as one does not know where to go when entering the World Wide Web for the first time. Like an illiterate upon entering a library building, submerged by immensity, fear takes over when the visitor is faced with immensity, as can be see for example in Alessandro Baricco's book of the pianist *Novecento*, or in the film based on *Novecento* by Giuseppe Tornatore.

The Story of Baricco's *Novecento* is concerned precisely with infinite vastness. The main character, 1900 or Novecento is a young orphan who has never come off the

²³²Alain de Botton, *How Proust Can Change Your Life* (New York: Vintage International Edition, Random House, 1997), 176.

ship on which he was abandoned in 1900. He wishes to stay in his own closed world. His refusal to get off the ship comes from the fear towards the unending infinity of the earth compared to the ship, which is a complete universe where its centre is a piano, from which he can define his own environment.

Alessandro Baricco's monologue *Novecento: un monologo* is the tale of an orphan found aboard a transatlantic ship in 1900. Novecento becomes a skilled jazz pianist and never sets foot on shore. A fellow musician and Novecento's friend tells the life aboard the transatlantic *Virginian*. Written in 1994, its Italian writer Barrico was unsure whether *Novecento* was initially a play, a novel, or something else.

The story is about a man with no land or culture who plays music to transcend global borders. This written monologue can be read in the form of a book, or seen in its 1998 movie adaptation by Giuseppe Tornatore, *The Legend of 1900* or under its Italian name: *La Leggenda del Pianista sull Oceano*. Francois Girard was the play director from Quebec at the Théâtre de Quat'Sous in Montreal who produced this story on stage after being inspired by the story from the moment he read the script. During his stage production at the Edinburgh Festival Fringe in 2001, Edinburgh-based reporter Vivien Devlin interviewed him and this is what Girard had to say about *Novecento*:

It is an epic fable of someone who leads a very unusual life. He never belongs to any land, any nationality or border. He has lived his entire life in the middle of

²³³ Alain de Botton, Ibid., 185.

the ocean, witnessing the world, watching and encountering the people on the boat, where he himself is his own culture. His music cuts across ideas of nationhood and plays a universal, unifying role. Through this man who doesn't belong anywhere, the play questions how we see the real world. ²³⁴

How can one see, when there is too much to see? Even though the boat in *Novecento* is a whole, knowable and accessible space (it is endless because as a boat it has no boundaries it can go anywhere; but in fact the character called Novecento comes to conceive that the world is infinite, interminable and can indeed seem too vast.

How and what authority makes the reader dare enter either the infinite text or the World Wide Web? The fear of being overwhelmed or the *swamp* that De Botton mentions evokes the figure of the Internet web. The hesitation that the reader has in entering and in navigating the infinite textuality of the World Wide Web comes from the fear of getting lost and not knowing where to start. We are afraid of the open text because we lose our way and it is often said that going on the World Wide Web is a waste of time. With Proust, as is often the case with books, the reader can enter *In Search of Lost Time* without necessarily reading it from the first to the last page. It can very well be read in fragments. One can even pick it up again somewhere in the middle, for often the reader wishes to savour an appreciated passage or re-browse a passage at random.

²³⁴ http://www.rampantscotland.com/features/bldev_review5.htm (September 2002).

In telling rather than showing what we know, we traditionally turn to texts and to the libraries where they are kept. Texts in the large sense of the word are found in books, and these objects occupy the library space where systemization — in fear of chaos and of losing a document — has always been the librarian's obsession. Just as literary texts reflect upon their very being as an object, libraries are book spaces wanting to fulfil the dream of a collection approaching total knowledge. A book that specifically ponders the absurdity of thinking total knowledge is *The Book of Sand* by Borges. ²³⁵ In this "tale," Borges presents a book seen as the object of an infinite text.

The idea of having access to information in a hypertextual project has had to deal with the idea of an endless library. Access to electronically formatted texts has given way to discussions speculating on the future of the book and the library. Thinking about the possibility of virtual libraries confronts us with a utopian notion of organising knowledge. An on-line library resembles a non-space or imaginary place evoking the ideal state of Plato's Republic; the coming of a better world is the belief that people can form a homogeneous community. It remains an impracticable project that appears as chimerical as the imaginary world of Jorge Luis Borges.

The book is central in Borges' tales such as *Pierre Ménard*, *The Babel Library*, *The Book of Sand* and *The Aleph*, works that have often been qualified as being post-modern in reference to the explosion of narration. These are hybrid fictions because

²³⁵ Jorge Luis Borges, *The Book of Sand* (New York, E.P. Dutton, 1977).

²³⁶ See, for example, *The Future of the Book*. Geoffrey Nunberg, ed. (Berkeley: University of California Press, 1996).

of the trans-historic characteristic of this author's literary encyclopaedism.

Understandably, the themes in his work explicate the understanding of hypertext because they are concerned with similar questions concerning networks, fragmentation, circular time and the labyrinth.

Every Borgesian fiction or tale proposes an enigma, or a paradox. In *The Babel Library* one can read about a dizzy-making library where library and universe are one and the same. In this Babel the reader follows librarians in search of the "book guardian" of human memory. Several Borgesian tales present themselves as police files that lead the reader astray because efforts to accumulate proof confound the reader. This travelling writer brings the reader to various countries, such as the Orient, Czechoslovakia, Argentina, England, and various places such as gardens, labyrinths, libraries and also books. In the Babel library the reader has doubts about his identity, for he is led through mirror games.

Amidst *The Circular Ruins* the dreamer is also the one dreamed about where the reader engaging in the game also becomes the author. Borges' world enacts a constant metamorphosis where the book guardian is lost in a nightmarish vision of the meandering labyrinth. Similarly the librarian will not be able to exit the prison that is the book of all books, *The Book of Sand*:

A prisoner of the book, I almost never went out anymore. After studying its frayed spine and covers with a magnifying glass, I rejected the possibility of a contrivance of any sort. The small illustrations, I verified, came two thousand pages apart. I set about listing them aphabetically in a notebook, which I was not

long in filling up. Never once was an illustration repeated. At night, in the meager intervals my insomnia granted, I dreamed of the book.²³⁷

Libraries such as the one in Alexandria or the British Museum wanted to hold and to archive everything that had been written. In looking for a classification system, they aimed for totality. The library was then a place where one would classify and organize scattered ideas existing only in an infinite and chaotic way. The material total library is not like the immaterial library which is an idea of endlessness that proposes an imaginary solution, or the hyperreal simulacrum of gathering all texts. The difference here is the concept that ideas remain endless and that a complete or total library is a utopian impossibility. In a story aiming for no boundaries, we are, therefore, in the presence of an empowering speech effect or the capacity of speech to embrace reality.

Borges forces us to face the problematic of the never-ending text in *The Book of Sand*. This story pictures the never-ending book where infinity resides in the ever so numerous number of pages. Looking at the endless number of pages, the bookseller of *The Book of Sand* cries out, "it can't be, but it is. The number of pages in this book is no more or less than infinite. None is the first page, none the last." Like a total library of Alexandria, we are faced here with thinking a space where one can keep all knowledge in one book as if it were a memory storage. In a total library one aims to preserve all books, even those whose characters are unknown; whereas Borges' *Babel Library* and his *Book of Sand* question not the idea of totality but of infinity.

²³⁷ Jorge Luis Borges, *The Book of Sand*, op. cit., 121.

For as the seller of *The Book of Sand* goes on to explain, "if space is infinite, we may be at any point in space. If time is infinite, we may be at any point in time." ²³⁸

The line is made up of an infinite number of points; the plane of an infinite number of lines; the volume of an infinite number of planes; the hypervolume of an infinite number of volumes.²³⁹

He told me his book was called the Book of Sand, because neither the book nor the sand has any beginning or end.²⁴⁰

One can only look at this immensity and imagine that one is deciphering it. The totality is only indecipherable matter. Even though the book is total, the reader is confronted with the illegible. The utopia of an absolute book resembles a dream about something that does not exist. What is important in this story is that the library and the work are there to reassure us, so that we can feel an attachment to a memory in this imaginary place of knowledge. Once the book of books has been opened, only lunacy can surprise us.

In another Borgesian tale, Pierre Ménard is a reflection on the author's death, and on his work as the immortality of the text, the infinite time of the infinite book and the *mise en abyme* of the work in the work. It does not matter who speaks in Borges' Pierre Ménard, one is in presence of a reconstitution of a work made up of scattered fragments. Without ever really knowing who is this Ménard and who is the author of

²³⁹ Ibid., 117.

²³⁸ Ibid., 119.

²⁴⁰ Ibid., 119.

Quixote, one understands effectively that the text is what is important and not the author of the text. For what are we left with besides texts and quotes?

Epic literature in Borges' fable is pure repetition, abolishing identity through reading where the narrator is, above all, a reader. The author of Ménard's invisible work is in fact the reader of Cervantes' *Quixote*, the reader being Borges. Every writer creates his own precursors, what is important is the coming reading experience and the reading time whether it be eternal or infinite time.

Maurice Blanchot wrote that reading was what made the book a work of art; the book becomes a work of art beyond the man who produced it. In opening a book, reading allows the work to exist through a virtual and immaterial rewriting carried out by the reader. Multiplicity or the difference of each of our readings brings a diversity of commentaries. Notice how Baudrillard comments on Borges as being the author who spoke through books:

"I always fall back on books, on quotations." Borges is the author of interreferences, of intertextuality since for him, no matter what one reads or writes all is already in a book and all has already been said or written. For the one who has lost his sight, it is still possible for him to quote the World for he is not able to look at it anymore. "Since he can no longer see the world, he quotes it." ²⁴¹

To remember is like having access to the information or to the story of an old book to which one makes reference and from which one recites. But for Borges, all is

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²⁴¹ Jean Baudrillard, Cool Memories, op. cit., 209.

already in the book. He insinuates the pointlessness of adding anything because all has already been said. What does the reader do except replicate the text? In short, the reader creates from pre-existing texts, reading according to the organization in a library. As Borges claims in his autobiography, if asked what counted most in his life, his answer would be: his father's library and that in fact, he never left this library.

Si on me demandait ce qui a compté le plus dans ma vie, je répondrais: la bibliothèque de mon père. Il m'arrive de penser qu'en fait je ne suis jamais sorti de cette bibliothèque. ²⁴²

Here one can wonder what happens to the individual through the question "what it is to be a reader?" What is a reader when it comes to his individuality? Simply put, a reader is a maker of association links. No more, no less.

What does the reader of the Western world do in the new millennium, now that she has access to a proliferation of media? We wonder whether reading on the Internet, for example, is a sign of entertainment, of evolution or of preservation of culture? Which viewpoint must we adopt on the transmission and the production of the text? Is there production of meaning in the interrelations between works of art and texts coming from different registers? Within hypertextual practices, do we not search above all for a reinterpretation of works of art and texts, or their updated versions?

With the use and the updating of texts in hypertexts, we must question a collective cultural belonging. If texts can through this practice communicate and make

references, they also engage in a comparative practice of tensions between the local and the universal, between the individual and the general. If we are able to compare and to start reading between cultures and worlds, are we still reading in order to understand? In hypertexts, do we read for comprehension or for detection, for interpretation or for imagination? I will turn to these vast questions now.

In the case of the hypertextual utopia, having access to all documentation within a total library is the situation in which one wants to believe in the total text giving access to all media – audio, video, graphics – on one computer system, with cross-references from all written documents and all pictures produced. Of course this total access with the World Wide Web and the Internet is believed plausible, whereas global communication where all can exchange information is impracticable. What really counts here is the simulacrum of having access to a semblance of such a utopia. The goal is utopian yet it allows the idea of a global communication project to advance.

In his analysis of utopian spaces, Louis Marin reminds us that utopias have always been just books: "Les utopies n'ont jamais été que des livres." Utopia was created on bookish ground, deriving from human ideas; utopia is where one exposes the ideology of a better world. Utopia comes from speech and is a space beyond a space in a "virtual" or "hyperreal" reality. Just as cyberspace is as already seen [section II,

²⁴³ Louis Marin, *Utopiques: Jeux d'espaces* (Paris: Éditions de Minuit, 1973) 17.

²⁴² Jorge Luis Borges, Essai d'autobiographie (1970, Paris: Gallimard, Folio, 1980), 276.

in Michael Benedikt's first definition in 1991, "globally networked, multidimensional, artificial, or virtual."244

As in cyberspace, the globally connected network called the World Wide Web makes one believe that traffic information will make the realization of the utopian project of a computer networked total information library possible.

This thought brings us back to the definition of hypertext, which Michael Heim indicated in his book on The Metaphysics of Virtual Reality where he refers to the term hyper in hypertext as being an "additional dimension" or extra dimension:

The term hypertext refers to the existence of an unnoticed or additional dimension. In board games and in mathematical physics, the term hyper means "another dimension." [...] In mathematical physics, hyperspace means "space with more than three dimensions." If the three-dimensional Euclidean space of the universe is curved back on itself, it becomes a limited but unending hypersphere.²⁴⁵

This extra dimension makes it possible to connect information through associations and what Borges described as being a memory made of books or of the book being at any point in space and at any point in time. Or what for Heim has to be the other dimension of hyperspace or the associative manner of continuous textuality:

The sense of a sequential literature of distinct, physically separate texts gives way to a continuous textuality. Instead of a linear, page-by-page, line-by-line,

²⁴⁴ Michael Benedikt, op. cit., 122-123.

²⁴⁵ Michael Heim, *The Metaphysics of Virtual Reality* (New York, Oxford: Oxford University Press. 1993), 30.

book-by-book approach, the user connects information in an intuitive, associative manner. Hypertext fosters a literacy that is prompted by jumps of intuition and association.²⁴⁶

Again, according to Marin, utopian spaces exist only in the possibility of speaking about them. Utopia is discursive and the only way to reach utopia is through its textual nature. This is a *Hyperworld* or world of all worlds; the utopian world is a world of language, of meaning production. On the other hand, for hypertext, it is about the potential of creating links between all the texts available in the immensity of the Internet network. Having access to documentation actualizes the adage "*Knowledge is power*." With information increasing access, we are in presence of a speech-producing power, or the capacity of speech to embrace and to define reality.

Pedagogy being the way something is taught, computer literacy is the ability to read and write and use a computer. Knowledge is thus not only being familiar with a certain issue but also having the information as well as a certain understanding of a subject and how to access it.

The Labyrinthic Book of Sand

With Borges, we will leave neither the book nor the library. Confronted by the problematic of the never-ending text, Borges' *The Book of Sand* questions its own presentation. This book questions the utopian image of what an endless book could be, according to Borges, where the infinity resides in the infinite number of pages.

²⁴⁶ Ibid.

Just as *The Book of Sand*, the digital text can in a hypertextual way give access to all texts in a infinite way. One has to wonder whether a digital text like a "book made of sand" risks getting stuck in the multitude of grains? In order to show the materiality of the book, here is a summary of *The Book of Sand*.

This is a figure of a book without end, a volume with an infinite number of pages: it is the book that flows in order to be suitable to all sorts of forms and shapes as if it were made of sand. The number of pages of the book is infinite and they are numbered in an arbitrary manner. The bookseller gives the following explanation: "If space is infinite, we may be at any point in space. If the time is infinite, we may be at any point in time."²⁴⁷

In Borges' short story *El Libro de Arena*, it is about a book that contains all other books: an infinity of pages or a *hypervolume*. This fantastic tale portrays a Bibleseller who comes knocking on the door of a retired librarian. He has come to sell him a sacred book: a canvas hardback in-octavo volume entitled Holy Writ. The exlibrarian opens the book at random only to find that the characters are unknown to him, although they are printed on two columns like a Bible. He is intrigued because the page numbers do not follow one another. He sees an even page with the number 40,514 and sees the odd page that follows is numbered 999. The bookseller warns him to take a good look at the page that he has just opened because he will never see it again.

²⁴⁷ Jorge Luis Borges, *The Book of Sand*, op. cit., 119.

The narrator closes the volume and indeed cannot find the page 999 again. The Bibleseller says that this book is called *The Book of Sand*, "because neither the book nor the sand has any beginning or end." It is impossible to find the beginning or the end of the book. There always remains a number of pages between the cover and the thumb when one tries to open the book at the first or the last page and so, when the narrator opens the book: "The stranger asked me to find the first page. I laid my left hand on the cover and, trying to put my thumb on the flyleaf, I opened the book. It was useless. Every time I tried, a number of pages came between the cover and my thumb. It was as if they kept growing from the book." The librarian holds an object that has the potential of keeping everything in one space, echoing here the notion of a universal literature held in one single work of art.

This book is qualified as "monstrous" and "nightmarish."²⁵⁰ Yet, the ex-librarian wishes to acquire it in exchange for a black-letter Wiclif Bible, and so he swaps a rare copy of the holy word for this infinite book. Having done so, this is where his obsession begins. The narrator cannot stop himself from flicking through — or is it scrolling or would we say today, browsing — *The Book of Sand*, this impossible book. While trying to decipher a system, he becomes prisoner of the Book.

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²⁴⁸ Ibid.

²⁴⁹ Ibid

²⁵⁰ Ibid., 122.

Understanding that this object is monstrous and that it corrupts reality, he finally decides to forget it on one of the numerous shelves of the Argentine National Library. Even though he has thought of burning the book, he "feared that the burning of an infinite book might likewise prove infinite and suffocate the planet with smoke." Infinity it seems, goes on and on and never allows for the reader to stand at a distance to be able to observe. Therefore, the librarian decides to go to the library and, "trying not to notice at what height or distance from the door, I lost the Book of Sand on one of the basement's musty shelves."

It is not the text that counts as narrative matter but it is its making that gives it its importance. The book becomes a utopian place where one hopes to recover a text that totalizes everything ever printed. This of course being impossible, its infinity resides in its endless number of pages that become the infinity of the text. Like the boundless number of sand grains, this *Book of Sand* is described as being made of a multitude of words and pages carrying text and image. It is an object that allows for a matrix and a space for what is infinite. In *The Book of Sand* example, the text is matter because it is palpable; one touches the materiality of the object by giving a place of confinement to that which cannot fit in any space due to its boundlessness.

Similarly, hypertext is the boundless fantasy of thinking that we can assemble all that has ever been written, recorded, filmed or said. Borges has often thought about the infiniteness of the idea of the book. Notably in the idea of a *Library of Babel* and

²⁵¹ Ibid.

in *The Book of Sand*, there are images to which one can always turn when it comes to fantasizing about a book without end or about a complete library.

Borges is essential when it comes to thinking memorial practices of the book and the library. A library like the one in Alexandria is the cultural practice of thinking a physical space where archiving the whole of knowledge like memory storage is thought possible. The Book of Sand is a space of fiction where the totality of that which can be expressed is preserved even though the characters are unknown. The reader can only look at this immensity and imagine that she is deciphering it, for in fact totality is only indecipherable matter and it seems that even though the book is total, the reader is confronted with illegibility. The utopia of an absolute book is like a dream of something that does not exist. What is important in these Borgesian short stories is that even though the library and the book are there to reassure us, we can ascertain a memory in this non-place of knowledge, for once the book of books is opened, there is only lunacy in the infinite space where there is no place to fix it.

This book made of sand always seems to have another page, so that the narrator cannot find its beginning nor its end as if this utopian matrix of the non-place portrays a multimedia matrix even before the apparition of the computer memory based on silica. The computer is a network that like moving and changing sand can contain the text infinitely. It allows us to look at a spatial dimension of the computer window which when connected on the World Wide Web network reflects infinity.

We are faced with a screen, a window where the reader can wonder whether she is able to penetrate it, or be part of it.

How can this new book frame be conceptualized? What would the neologism be in order to describe this new textual space? The book has been considered as the symbol of the knowledge and the universe, the *Liber Mundi* as a Revelation is the first model of the divine message. Gerry O'Sullivan in his article on *Intertextuality in Borges and Foucault* stresses how *The Book of Sand* is the "resisting Other" - or the opposite of a Bible:

It is not surprising that Borges, with delicious irony, would make the bearer of such a book a Bible salesman. The Bible, after all, remains the West's exemplar of and for textual unity, and "The Book of Sand" assumes the character of the Bible's sinister Other - a book that, almost demonically, resists closure. [...] Suggested by the Borgesian library and the Foucauldian archive is what Foucault has described as a discursive "disease of proliferation" - the seeming inability of language to avoid repetition, reduplication, and multiplication. ²⁵³

In Borges' work, books are open and are only copies, repetitions, translations of each other. The book contains global knowledge and closed, the book only preserves a secret as for when it is opened, the reader that scrutinises it can try to decipher its content. To have access to a world-wide library through linked digital documents on the World Wide Web would potentially mean to have access to all texts, to the multitude of sand grains. If like Borges, we think of the book frame as multiple and fluid as sand, it is then made of the multitude and the abundance of its grains, so like

²⁵³ Gerry O'Sullivan, "The Library is on Fire, Intertextuality in Borges and Foucault" in *Borges and His Successors, The Borgesian Impact on Literature and the Arts*, Edna Aizenberg, ed. (Columbia and London: University of Missouri Press, 1990), 116.

water it is hard to model or to set in a fixed frame. Always unstable and changing, if the book containing all books keeps growing, it might be useless or at least hard to locate a specific document or to find again something consulted before.

If the idea of a vast open book containing all books exists, it must reside in the accumulation of documents through digitization potentially linked in a hypertextual network. Hypertext, like a text without end, has the capacity of giving access to all possible texts. All possible texts or the infinite can never be finished or closed. Like a book of sand that remains fluid, infinity remains open to all possibilities or combinations, the hypertext project cannot be fixed or hardened. Neither its matrix nor frame can be seen, for in the remix cultural practice not only is the reader absorbed by the image on the computer screen, she is also caught in a space that constantly grows and tends to become an infinite non-place.

As a portal, the computer can immediately give access to the vastness of documents. The issue here is the possibility of continually being able to tell stories. With Borges, all correspondences, all symmetries even are possible outside of space and time. As seen, Borges explores the themes of the infinite and the whole, and the unlimited possibilities. A shape that Borges calls the *Aleph* where one point in space contains all points like *The Book of Sand* or *The Library of Babel*.

As an open work, the hypertextualized World Wide Web is a space one enters but one never manages to see its end. Infinity is like a work in progress. There will always be links to forge and intertextual ties to be built from one document to another. Becoming gradually an interlacing place of knots and hyperlinks found on the World Wide Web, hypertext loses its non-localisation and at the same time its utopian connotation.

The Book of Sand is like a warning of reading and its effects, of what can happen to the reader when she keeps on looking for a system. Borges in fact is more concerned with the reader than with the text. The infinite text illustrates how we tend to fix documents in a materiality, using them as a memory-aid or memorandum. Utopia being only a discursive practice in the shape of a book, The Book of Sand is itself utopian aspiring to list all in a encyclopaedic manner. In hypertext, readers are nomads of the difference, of always finding something different right here, right now. The narrator of The Book of Sand is trying to look obsessively for a directory or a thumb-indexed system but all he can find every time he opens and flicks through the book is something new, something different that appears in the immediate moment of consultation.

Like browsing the World Wide Web or a hypertext document, there is an obsession with movement, to be always on the road towards some point or link on the map of the infinite world of texts and documents. Whereas if the reader wants repetition and not the surprise of the immediate instant, he can keep to the text of the enclosed book which is more like a guided tour or a fixed itinerary. In a hypertext, we can vagabond freely in multiple worlds while still feeling totally secure and free to consult

documents as many times and whenever we like or without limitation.

What is a hypertext instant? It is possibly the moment of a new textuality as opposed to the fear penned by Borges that a reader will never be able to read everything. In *The Book of Sand*, we are faced with a reader who wishes to follow an established well-structured reading path, only to find that reading this demonic infinite book requires to follow an individualized trajectory for the reader. This allows us to question the construction of a discourse, for if reading links now depend on the reader's own trajectory, how can unstructured open texts create a cultural coherence or identity? How can there be cohesion, if every reading is personal? We wonder how to look for the reader's relations to the text?

Different from a memorandum or the holder of a canonized and fixed text, hypertext is like *The Book of Sand* and becomes the carrier of individual reading paths that link eventually to other ways of reading. The World Wide Web is an approximate incarnation of *The Book of Sand* because it allows us to enter a *Library of Babel* or a never-ending text where books do not amount to their materiality anymore. But then again, on the one hand, reading is based on the question of the time; on the other hand, on materiality. One can never have the time to read everything or at least to read enough. In our contemporary world of stress, we do not seem to have the time to read and assimilate books. (Who is "well-read" anymore today?)

Hypertext or the text in the new technologies must be thought outside the individual.

I would like to see hypertext as a relation to the text and at the confluence of meeting a reading community. It is necessary to re-enrol the text in a game by repositioning literature like a relational strength.

The electronic network society allows for the reader to renew modes of interpretation. The reader-creator converges towards a new mediated community where she can exchange roles and not be caught in a division between producing and consuming. These reading networks allow for exchanges to take place in the network of the hypertext labyrinth in order to recover linked readings and memories.

The many links proposed by research browsers on the Internet can be seen as a labyrinth where one accumulates data and branches out to different links. Before considering how to tackle this maze of passageways, it is useful to repeat that the labyrinth is of course not a new figure when it comes to describing the textual material.

As Borges said himself in the afterword of *The Book of Sand*, the volume of incalculable pages portrayed in the story of *The Book of Sand* is an inconceivable concept but what he wishes for is the ever renewing richness of telling stories.²⁵⁴

I hope that these hasty notes I have just dictated do not exhaust this book and its dreams go on branching out in the hospitable imagination of those who now close it. 255

²⁵⁴ Jorge Luis Borges. The Book of Sand, op. cit., 125.

For Borges, it is indeed about branching out or reaching across in order to let our imagination and memory travel the labyrinth. Continuing in this gleaning discourse, I wonder how the erasing of an origin in *The Book of Sand* questions the origin of a work of art and what to do when the origin seems lost or unknown? For if a book is opened, or in the case of this study, a web page is browsed and the reader does not really know or recognize what she is looking at, how can a link be made?

How must the reader react when he sees something that seems familiar but is not sure what it is anymore? In this case, a hypertext has a link that is a selectable connection made from words, pictures, or information object to another. In a multimedia environment such as the World Wide Web, such objects can now even include sound and motion video sequences. A common form of link is a highlighted word or picture that can be selected with a mouse, resulting in the immediate view of another word, picture, or information file. The highlighted object and the object referred to constitute a hypertext link. It is said that links are what make the World Wide Web a web. The many links proposed by research browsers on the Internet can be seen more as a labyrinth where one accumulates data and branches out to different links. Before considering how to tackle this maze of passageways, it is useful to repeat that the labyrinth is of course not a new figure when it comes to describing the textual material.

²⁵⁵ Ibid. The book is signed J. L. Borges at the end with the place and date: "Buenos Aires, February 3,

Reading El Che

Recycling of a (Re)Framed Picture

When it comes to travelling images, the reproduced, over-exposed and over-famous case of a reconfigured and recycled photograph is a famous snap-shot of Ernesto Che Guevara (Fig. 1):





Fig. 1 Fig. 2

Also known as *El Che*, his well-known photo was originally taken in 1960 by photographer Alberto Korda, whose name was quickly forgotten, but whose picture of the *guerrillero* quickly developed into a very lucrative poster, stuck-on iconic image industry. It will be easier to refer to the photograph taken by Korda as the Che image or picture.

Figure 1, is a photo I took of a poster at a Montreal bar in April 2000 of a band called *Genocide* who played covers of the rock group *Rage Against the Machine*,

who on their CD had previously used the Che picture. So, this is a picture of a picture that recycles The Che image in order to pay tribute to a band that also repeats The Che image in order to pay tribute to the guerrillero. Just as my photograph in Figure 2, that I took in the Jeanne-Mance Park in Montreal in June 2002 of two strolling youngsters with one wearing a variant of a Che T-shirt displaying a reproduction of Korda's photograph.

In the Spanish language of Guevara's homeland, *Che* is the interjection word *iche!* which could be *hey!* in English. It functions as a "tag word" according to the narrative text by Matilde Sanches in Fernando Diego Garcia and Oscar Sola's book, *Che, Images of a Revolutionary*²⁵⁶ – a tag word or, should we say a hyperlink for references to revolutionary actions or statements of resistance?

This image of resistance works as an archetype of memory repetition. Its numerous occurrences in cultural networks provide an excellent example of cultural recycling that, as Méchoulan explained when describing the copy of the Parthenon in Nashville, Tennessee, "dissolves time in the immediacy or synchronicity of its presentation." Likewise, Che T-shirts break up time even if his photo portrait has come to express resistance and anti-globalization movements today.

²⁵⁶ "It was Nico who christened Ernesto 'Che'—a versatile tag word widely used by the portenos of Buenos Aires and the River Plate area. As Che observed, the name has an air of 'tango' about it—exactly the sort of connection he had hoped to escape by traveling and which was now restored to him by, of all people, a Cuban." In Fernando D. Garcia and Oscar Sola, *Che, Images of a Revolutionary* (London, Sterling VA: Pluto Press, 1997), 45.

Photographs are traditionally framed objects which have, with the advent of new technologies, been made to travel within new frames and not always returning to a state of origin. As a diluted symbol of freedom, this particular image of Che is no longer a body, but a reproduced and reprinted shadow on a T-shirt, or the illustration of a compact disc or a computer wall-paper used as background image for numerous web sites or even music video-clips.

In this discussion on hypertextual documentation links, it seems that the reproduction of this "hero" is not only being moved around but is also a metamorphosis of a concept of origin and originality. This hero metaphor has travelled as a second-skin frame and as we slip on our Che T-shirt, do we metamorphose temporarily into a super hero? In paying tribute to revolutionary ideas, rock bands use this image to illustrate their compact disk while at the same time recycling and sampling lyrics from other rock bands and different images of protest.

The Borgesian statement "[p]erhaps universal history is the history of a few metaphors"258 is a leitmotiv for the resurgence of the leftist sixties cult of Che Guevara, even if this image is a synecdoche, or a symbol, that is always a part of a totality. Paul De Man, in his essay "The Rhetoric of Temporality" distinguishes allegory, synecdoche and metaphor where in contrast to the Gadamer aesthetics that refused to distinguish between experience and the representation of this

Éric Méchoulan, op. cit., 149
 See Jorge Luis Borges in his Other Inquisitions 1937-1952 (Houston: UP Texas, 1964), 6.

experience.²⁵⁹ It is important to stress that the symbol is always a part of a totality, or to be precise, of a whole web of connections.

The popular and commercial use of the Che photograph makes us question whether this is the framing of a concept of freedom or just a simple reference back to a historical picture with lost and scattered meanings? When our concepts of freedom change the face of a commercialized product, is there still reference to the original concept or are we only seduced by the image? Is a photograph recycled in order to remember? If so, is it made to remember what and with what goal? Che becomes a recycled model through which one wants to repeat a feeling, an idea, and a memory. Facing the photo of a photo of a photo, we question the framing of the hero in a moving collective memory and how this unstable picture wants to achieve a difference. At the same time, we ask what kind of seduction is being framed? We are seduced by a vision as this photograph forces us to look at Che's gaze in reference to the sign's trace; ²⁶⁰ it is Barthes's *punctum* pointing towards the look of freedom. ²⁶¹ Like a cursor, his eyes show the way of liberty even though every reproduction and distortion of this picture make us stray from the point of origin.

The metamorphosis or the recycling of a concept of origin and originality is scattered throughout different cultural productions. As noted earlier, Deleuze and

²⁵⁹ Paul De Man, "The Rhetoric of Temporality" in *Blindness and Insight: Essays in the Rhetoric of Contemporary Criticism* (Minneapolis: University of Minnesota Press, 1983), 187-228.

²⁶⁰ Christine Ross: "Le cadre, c'est alors un regard dédoublé à l'oeuvre, qui n'est pas sans faire voir mon propre regard à l'oeuvre au cours du visionement. En d'autres termes, les images étant à la fois

Guattari evoked that the history of every concept is a winding one, composed of bits and pieces of other concepts.²⁶² As we trace concepts and ideas, and how they have influenced one another and how they have been recycled and reused, there emerges a distinct cultural memory built on contacts and interrelations.

The rhizome, as already said, allows connection of thought without necessarily resorting to a structured, hierarchical approach to conceptualising memory. [See section II]

Memory in this form is expressed by means of increasingly exchange-based type of textuality. Cultural Recycling is the insertion of a cultural product in a new context. It is seen as a process that can have a dramatic effect on the cultural material when it produces banality or the loss of memory. ²⁶³

Furthermore, the Che picture has been made available through digitization on the Internet, and its quotation or collage has become a new text, which belongs to the open document electronic space, where this image stays and re-emerges in the collective memory through associative thinking. But cultural web site page creators do not automatically think of adding documents by using the connections within texts and their intertextual references, as they reuse and recycle material, unfortunately not

électronisées et fusillées, tout se passe comme si le système oculomoteur du spectateur activait le tir." op. cit., Chapitre 1.

op. cit., Chapitre 1.

261 See Roland Barthes. *La chambre claire* (Paris: *Cahiers du cinéma*, Gallimard, Le Seuil, 1980).

262 Deleuze and Guattari, *Ou'est-ce que la Philosophie?* (Paris: Éditions de Minuit, 1991).

always thinking of mapping out connections and references in their repetition and reframing of ideas which have become trans- or non-historical. In this sense no one bothers retracing either memory or history but will just use the picture in a cut and paste manner. El Che is used as a picture of protest without the need of his story to be told. So, if memory is indeed associative and fragmented, if it is all we need for reminiscing, what then is a picture of Che on a red flag?

After having been framed by the camera of the photographic medium, the character of Che began to live a life of its own. While living according to the ideas of a revolution, Ernesto Che Guevara found death as a martyr and his image was staged as a frame of life sacrificed for freedom. An image always seems to be contained within a frame, demarcated by a line and mediated space, as Erving Goffman observes in his frame analysis of the theatre: "A line is ordinarily maintained between a staging area where the performance proper occurs and an audience region where the watchers are located." It is not Che but his shadowy picture that performs.

Although Che's picture has made the man behind the stare lead the life of an actor, led by a picture that engaged a performing life of its own, it has done so outside a line of demarcation, where the audience has been entering this picture's space and endorsing the performance itself. By sticking this photo of Che Guevara as a poster on the wall, they have entered a staged and framed form of social protest. Che's

²⁶⁴ Erving Goffman, Frame Analysis (New York: Harper & Row Publishers, 1974), 124.

²⁶³ See Claude Dionne, Silvestra Mariniello, Walter Moser, eds. *Recyclages, Économies de l'appropriation culturelles* (Montréal:Les Éditions Balzac, 1996).

message of freedom circulates outside the original frame of the picture, and therefore it becomes hard to distinguish an outside and inside of the picture's frame, so when an image starts travelling through different types of media, it is difficult to keep on framing it or at least to keep track of its new extensions. For Goffman, there are two primary frames: the natural and the social. It is the social frame that contains the cultural laws. The face that glared in the original picture has become the cultural frame of something more than the initial leader of South American revolutions. Che's picture is deterritorialized and no longer only belongs to the photographer nor to the Cuban society, but has travelled so much through different cultural utterances that it is somehow out of control of its original frame.

Intermediating the Aura of a Cultural Icon

The constant recurrence of Che's picture seems to define framing as a constant movement between an outside and an inside of a frame where a picture's frame is always in the aesthetic process of (re)creating a subjectivity for itself. Although reframings seem passive, the multiplicity of links and reterritorializations allow an *autopoeisis*, or self-production, within the kind of "chaosmosis" dear to Félix Guattari. [See section I]

Through travelling, this picture deterritorializes itself continuously and in doing so unframes and reframes itself constantly through the *autopoeisis* of Che himself.

²⁶⁵ Ibid., 33

Spilling out of his frame, this photograph is permanently reinventing itself and the concept of freedom. On the verge or edge of framing, this image is not fixed and can continue travelling and re-emerging in different media. By its *autopoeisis*, it resists repetition and constantly renews aesthetic framings by producing subjectivities.

If we decide to look at this picture as a manifesto of a subject's freedom, we territorialize it in a frame. However seeing it on the reproduction of a rock group's T-shirt makes us question the frame of freedom. Does it still have the same kind of meaning when it is no longer the same reference and becomes an act of deframing, a sense of breaking up in a baroque kind of proliferation. This leads the subject to recreate and reinvent itself constantly.

The filmic concept of travelling circulates across different cultural instances but within the emptiness of fluctuating frames. A concept can enter a flux because it is being submerged, while borders are meant to be crossed over. What can we do when cultural objects have no boundaries anymore in a constant deterritorialization undoing reterritorialization? For Guattari, we must work on aesthetics of transversality in an attempt to cross beauty, truth and good even if these are necessarily practices of territorialized expressions.

In trying to cross-over concepts, cultural concepts are often reused or reassembled.

Cultural recycling is a process of sampling, reapropriation, as in imitating, copying,

²⁶⁶ Félix Guattari, *Chaosmose* (Paris: Éditions Galilée, 1992).

and quoting. In the case of the Che picture, it has become an homage to the concept of freedom somehow framed through the shadow of this figure. In a way, it is not really necessary to know who Che was to revive an idea of controversy through all kinds of prints and graphic designs. But at the same time, this image is not only a simple reproduction, there is a sense of loss of origin within the numerous transformations. So how can we recall an origin through a consumer product? Is it still about knowing who and what freedom represents? In which case, does Che's story really matter anymore? Or even more important, do we always want to make a statement when we reproduce this picture?

Are we, like Walter Benjamin, facing the loss of an aura or are we, on the contrary, in presence of the aura alone? Is the travelling frame here simply that: the aura or the silhouette of Che. The visual use of the shadowy Che paper cut-out is maybe just the aura of a picture taken previously showing the construction of a hero or even a shadow of a hero. Like a second skin frame, the Che image does not necessarily live on in the political or historical sphere but lives in the world of images. It is also the image of a romantic hero and whose face you see printed as a shadow on the red flags of anti-establishment demonstrators, or on the T-shirt worn by the fans of the rockband with the allusive name *Rage against the machine*. We encounter here the framing of a concept of freedom, but how is it possible that we still hear cheers when it comes to commenting the political regime of the *lider máximo*, Fidel Castro. The work on this picture is the result of cultural recycling that enables the metamorphosis into the subjectivity of a "super hero."

Re-working an auratic artwork forces the reader to step out of passive spectatorship and to become a creator. For Benjamin, the decline of the "aura" caused by mass reproduction opened the way to the appropriation of art. Reusing the Che picture as a T-shirt, mass product by excellence, shows in fact how the aura persists.

The materiality of his body plays a part in this metamorphosis. The body must engage in the revolutionary movement, as in a metamorphosis. The passage through the body is achieved in the body of the other, there is imitation and the slipping on of a mask. In an almost archaeological manner, the remains of the Che's body were sought, identified and buried not so long ago. Even though his face is only a shadow of itself, a message in his name travels, it is a message of a missing body. The metamorphosis of a body that is no longer, where the image of the Che is fragmented and relocated, recuperated by nostalgia and which we put on our body by either a tattoo or garment bearing his iconic effigy.

To see how we are in presence of the aura alone, it is interesting to click-point-quote and just read the description of a photograph by Don DeLillo in his novel *White Noise*. The protagonist describes "the tourist attraction known as the most photographed barn in America." A place where tourists head to, just to take a picture after having been attracted by signs announcing the barn. However, these people are not aware that they are already part of a whole tourist scheme in which they are immersed. In fact by taking photographs of something that is believed to be a "tourist

attraction" or some kind of historical memory from which they cannot get out, they become the aura, because these tourists are part of the aura:

Murray asked me about a tourist attraction known as the most photographed barn in America. We drove twenty-two miles into the country around Farmington. There were meadows and apple orchards. White fences trailed through the rolling fields. Soon the signs started appearing. THE MOST PHOTOGRAPHED BARN IN AMERICA. We counted five signs before we reached the site. There were forty cars and a tour bus in the makeshift lot. We walked along a cowpath to the slightly elevated spot set aside for viewing and photographing. All the people had cameras; some had tripods, telephoto lenses, filter kits. A man in a booth sold postcards and slides—pictures of the barn taken from the elevated spot. We stood near a grove of trees and watched the photographers. Murray maintained a prolonged silence, occasionnally scrawling some notes in a little book.

"No one sees the barn", he said finally.

A long silence followed.

"Once you've seen the signs about the barn, it becomes impossible to see the barn."

He fell silent once more. People with cameras left the elevated site, replaced at once by others.

"We're not here to capture an image, we're here to maintain one. Every photograph reinforces the aura. Can you feel it, Jack? An accumulation of nameless energies."

There was an extended silence. The man in the booth sold postcards and slides.

"Being here is a kind of spiritual surrender. We see only what the others see. The thousands who were here in the past, those who will come in the future. We've agreed to be part of a collective perception. This literally colors our vision. A religious experience in a way, like all tourism."

Another silence ensued.

"They are taking pictures of taking pictures," he said.

He did not speak for a while. We listened to the incessant clicking of shutter release buttons, the rustling crank of levers that advanced the film.

"What was the barn like before it was photographed?" he said. "What did it look like, how was it different from other barns, how was it similar to other barns? We can't answer these questions because we've read the signs, seen the people snapping the pictures. We can't get outside the aura. We're part of the aura. We're here, we're now,"

He seemed immensely pleased by this.²⁶⁷

²⁶⁷ Don DeLillo. White Noise (Viking Penguin Inc., 1985, Penguin Books, 1986), 12-13.

If, as Hervé Fischer says, "art is iconic" [see section I, page 26] , photography and other recent technologies of reproduction are all caught up in trying to grasp an aura or iconicity. As in DeLillo's barn or in the Che Guevara image, are these pictures not beyond being just a commercialized product? Are their numerous repetitions only showing us how we can be seduced by the image?

When analyzing cultural practices, Régis Debray who took part in the revolutionary movements in South America and knew and wrote about Che Guevara said that we must look at what is found in between, and in the intervals and interfaces of cultural transmissions. He believes that we must observe the emergence of a hero through the lost trajectories and dynamics that he goes through.

Debray's *mediological* method allows a synthesis that enables us to describe for example, the passage from person to hero. Such a transfer can be observed in Che Guevara's case, as he passes from having life, to becoming a historical, social and political document and turning into the picture of an highly commercialized icon. He passes from palpable to simulation, and the transmission can be found in the juncture of theory and practice. For Debray, we must be careful when we interpret and try to intervene with a pragmatic approach. He believes that we should try to see how a life is metamorphosed through different media trajectories.

²⁶⁸ See Regis Debray's *Manifestes Médiologiques* (Paris: Gallimard, 1994) and *Croire, Voir, Faire*, (Paris: Éditions Odile Jacob, 1999).

Is the Che Guevara syndrome carefully orchestrated political propaganda? Probably not, and the biography of this anti-establishment figure does not really matter in the reappropriations undertaken by rock groups. We need not wonder or question whether this is in a new "context" but how can there be a new cross-over when there is no reference, and do these tributes actually take into account the living conditions of the victims of the Cuban revolution?

After Castro, Che is certainly the most famous contemporary life of a Cuban. It does not matter that he was not really Cuban, Che is caught in a dispersion between archiving on the one hand, and scattered reappropriation or re-understanding within a difference on the other hand. In accordance with Jonathan Culler's comment in *Framing the Sign* that context is not given but produced, we believe that Che has not become a person but rather a shadow to remember within the framing of a hero, where we are being seduced and given directives on how to be a hero. As a former French web site devoted to Che suggested: "to become a myth you should be goodlooking and wear a hero's costume which is made of a star-spangled beret, an olive coloured combat uniform, and a cigar. You should also suffer martyrdom, posses a will to overcome injustice, imperialism, poverty and have a global message. Che assembled all these conditions in the ideal 'homme nouveau.'"²⁶⁹

In a moving collective memory, his staring gaze becomes a passionate representation of resistance. This look trespasses the historical picture beyond a

frame into the world of images. He seems to stare in such a way that this is no longer just a look but a speech act or an articulation of life. This image seemingly becomes so real that it is able to leap into other spaces in search of liberation, spreading beyond into memory's virtuality.

We face the mediation of a myth through the links and networks of different cultural media of production. Regis Debray in his *Métamorphose d'une vie*²⁷⁰ article on Che warns us of the mediation of an ideological message. In other words, we must be careful to sort out archives and watch out for commercial negotiations – such as turning Che into a T-shirt.

These new configurations probably offer the model of an open work and a zapping mode of looking at a work of art. We do not circulate within but in-between images and we are able to enter a story from any vantagepoint, so framing becomes obsolete or permeable. For Régis Debray, it is important that we observe insertions and transmission within several interfaces, because for him a "mediological" person does not cohabit with his technological environment but is himself cohabited by his habitat.²⁷¹

²⁷⁰ In Régis Debray, Croire, Voir, Faire (Paris: Éditions Odile Jacob, 1999).

 $^{^{269}}$ A simple key word search using Che Guevara on the web search engine www.google.com for example, return many references on the romantic vision of Che Guevara.

Rhizomatic Linking

Images like the Che picture configure our cultural habitat which is pierced and linked by rhizomatic scatterings all at once in the simultaneous presence of heterogeneous space. As a result, there are no longer hierarchized distances between different documents or icons, for they are now in the same territory grafting ideas across continents, irrespective of national boundaries. The rhizome connects and assembles in movement, without necessarily losing or gaining anything and without giving more importance to one element over another. Where deterritorialization cannot be separated from reterritorialization, the deframed and reframed image becomes part of the same simultaneity; within its simultaneous undoing and redoing it opens up multiplicities and multireferences.

With the de- and reterritorializated travelling of the Che picture, or its remediation, as Bolter and Grusin would say, a first reaction could be to deplore the loss of meaning or, at the very least, some level of recognition of relevance.

As seen in the kind of questions that this picture of Che evokes. For example, whether this is Antonio Banderas, the popular Spanish actor who played a character named Che in the film *Evita*. Confusing the Argentinean/Cuban guerrilla leader makes us question the foggiest of transfers. Another occurrence came up amidst the controversy of the US attack on Iraq, in April 2003, when we witnessed the release of the album *American Life* by pop music icon Madonna. Here the "material girl"

²⁷¹ Ibid.

disguised herself on this album cover into the famous image of Che.²⁷² Another remediation of this picture found at the same time on the Internet, had even Oussama Ben Laden morphed into the hero of the Cuban revolution.

By finding multiple references of a picture such as Che Guevara's on the Internet, within a network of hypertextual linkage, we have already seen how in fragmentation the reader can become a scissors-reader. In order to remember her readings, she just cuts out the essential and uses the power of repetition.

Just as the clippings of Che's picture have been pinpointed and cut out from one link to another on the basis of single ideas or concepts of freedom and revolution, the redistributed knowledge network is a scattering that allows the differentiation so dear to Deleuze rather than a simple repetition. This picture is metamorphosing and as it gives way to new cultural transmissions and fluctuations, there is fragmentation and constant reframings and deframings. With these kinds of cultural transmissions, the distinction between public sphere and private space is also becoming blurred because the works of art are themselves becoming part of the public domain— witness, for instance, web discussions in the public sphere conducted within the private space of the home, where one can share common cultural memories without having to be in the same actual geographical space.

²⁷²Alexandre Vigneault in his article "Che Madonna?!?" writes: "[Madonna] sait attirer l'attention, comme le montre encore une fois la pochette de son dernier disque, American Life, oû l'icône de la pop mercantile apparaît dans une pose calquant la plus célèbre image de Che Guevara." (Montréal: La Presse, Saturday 26 April 2003, D12).

²⁷³ Gilles Deleuze, *Différence et Répétition* (Paris: PUF, 1968).

Hence, hypertext allows for popular Western cultural icons as diverse as Gustave Flaubert's *Madame Bovary*, Alberto Korda's Ernesto Che Guevara photo and L. M. Montgomery's *Anne of Green Gables* possibly to meet despite the non-linearity in this association of these names.

Due to interactivity, hypertextual aesthetics are based on movement across cultural practices rather than finished artefacts, on fragmentation and discontinuity (recycling/collage) rather than continuity, and on interactivity rather than linear passivity. Borges' labyrinthic library and Deleuze and Guattari's rhizome are the theoretical icons for another pedagogical literacy in which hypertext inscribes itself.²⁷⁴

²⁷⁴ [Click back to section I, page 2.]

Conclusion: Hypertext, the Memory of Cultural Icons

This dissertation proposed the idea that hypertext works in a manner similar to memory as a semantic network in which texts, images and ideas from books, films, paintings, photographs or music are linked together by association. The World Wide Web networks a distributed hypertext system, where we may preserve a cultural heritage through Net-browsing or, as I prefer to say, where we form a cultural memory map on the Net. In hypertext practices, we must not resist the clicking urge of gleaning, which will allow for textual and cultural memories to occur.

The first section on hypertext was concerned with the changes of cultural worl(d)s of production through questioning memory and hypertext. This dimension stems rather more from a «cultural studies» approach on hypertext seen as the site of new memory practices. As a result, this dissertation dealt with popular Western cultural icons as diverse as Madame Bovary, Anne of Green Gables and Ernesto Che Guevara in order to assess that despite the missing linearity in this association of names, the pedagogical practice of memory in hypertext networking allows for these icons to meet.

The second section moved on to memory practices and on hypertext as an archetype for memory where cultural recycling on the World Wide Web is seen as a transition

towards creating rather than repeating a collective memory. To be able to remember, it is necessary to replace memories in a whole context of facts and ideas. Societies have access to their cultural codes where hypertexts can serve the purpose of a memory for our various thoughts and stories.

In this research, the daily practice of hypertext made me realize that it was much more than a tool providing the "user" with multiple pathways. The routine mix of lurking on web listservs, browsing the Net, corresponding world widely through emails, as well as zapping, clicking, quoting, connecting and linking documentation fragments made me experience the surrounding worlds in a way that transformed my thinking through a new practice of remembering, and made me think about the workings of knowledge and memory. My practices of memory and knowledge have changed through hypertext.

In short, I have argued that hypertext offers a new type of school where students can learn how to establish links between texts. Teaching intertextual links relies on the acquisition of cultural relationships. Reality needs for a virtual memory has changed reality into the hyperreal.

The third section proposed that the humanities can act as guides and provide a critical assessment of the way in which the new technologies influence learning and culture. Indeed the very context of the humanities and the type of questions they ask make it possible for people not only to learn a philosophy of knowledge sharing but

also to question the way in which collective memory is passed on and reused. The cultural icons were analyzed as if they were hyperlinks that one could click on while browsing a hypertext.

The Icons

Madame Bovary While sipping her coffee, the cyber-traveller could be navigating on the World Wide Web waiting for an event to occur. Just as a Bovaryst reader, this reader could live a life of melancholic desires and disappointments, but instead she can also choose to participate in a community of fervent readers. If only Madame Bovary could step into hypertext, she might satisfy her desires of being somewhat different and having some activity in her life. The traditional ferret reader, or lurker, must enter a community of network texts. If she does not do so, she remains in the shadow of her readings and, like Emma Bovary, only gleans among her passive readings always looking for creative and liberating readings. The eternally dissatisfied Emma is the figure of the desiring reader, as Emma goes from desire to disappointment; just like any reader who identifies with her readings, she would like to be able to live the life of a novel. Nowadays this book-consumer and compulsive purchaser would be clicking frenetically at midnight to fill her virtual shopping cart on the web site www.amazon.com.

Anne of Green Gables The coming of the Internet has allowed for e-mail

correspondences to criss-cross the networked society. Here, cultural memories can be created as well as recycled and mostly recalled because as part of a *listserv*, the reader becomes part of a cultural group that shares a common interest and shares an accessible memory bank. Getting lost in one's readings does not necessarily have to be confounding. Hooking up on the Internet network can allow a reader to share common cultural memories without having to be in the same actual geographical space. In the hyperreal world of L.M. Montgomery, readers of the electronic highways sign up to many discussion lists in order to connect to a community in hyperreality and hyperspace.

Che Guevara— The photographic image of Che is no longer a body, but a reproduced and reprinted shadow on a T-shirt. As Barthes's *punctum*, like a cursor, his eyes show the way of liberty even though every reproduction and distortion of this picture make us stray from the point of origin. This picture deterritorializes itself continuously and in doing so unframes and reframes itself constantly through the *autopoeisis* of Che himself. Spilling out of his frame, this photograph is permanently reinventing itself and the concept of freedom. On the verge or edge of framing, this image is not fixed and can continue travelling and re-emerging in different media.

The rhizome The visual pointer icon in the redistributed knowledge network is used like a clickable rhizome. Reading thus becomes a network where the rhizomatic hypertext reader is aware of a knowledge network, of connections made in

relation to others. Hypertext reveals our daily entanglement with technology and the problem of thinking relations of thought according to a historically established hierarchy in Western cultures.

As I have shown, the "rhizome" Deleuze and Guattari offers an exit out of the traditional image of knowledge of arborescent thought. The rhizome is different from the thought of knowledge seen as a "the tree of knowledge" where everything is predetermined and fixed according to a knowledge canon. The hierarchical view of knowledge organization presupposes an order of thought and events where the thought would be that the reader must know A, before being able to know B. Compared to the tree of knowledge, the rhizome is more underground and flat. In terms of time and space, it is not vertical with a beginning and an end but horizontal with an undefined, infinite and unlimited openness. As through associations and in the Deleuzian concept of *becoming*, when A becomes B, it continues to be A, yet it becomes B without transforming itself into B nor into C but is also C.

The Labyrinthic Library Borges proposes what he calls a regressive approach to locate books because the Library is total and a document exists only because of other texts: "in order to locate book A, first consult book B which will indicate the location of A; in order to locate book B, first consult book C, and so on ad infinitum..."²⁷⁵

²⁷⁵ Jorge Luis Borges, "The Library of Babel", in *Ficciones*, op. cit., 85.

Borges wrote books about books and saw them as having neither a beginning nor an end. The combinations network within his description of *The Babel Library* produces a phantasm of totality and recalls the archetype of the labyrinth as memory's network. Borges in fact is more concerned with the reader than with the text. The infinite text illustrates how we tend to fix documents in a materiality, using them as a memory aid. But how can there be cohesion, if every reading is personal? We wonder how to look for the reader's relations to the text? Different from a memorandum or the holder of a canonised and fixed text, hypertext is like *The Book of Sand* and becomes the carrier of individual reading paths that links eventually to other ways of reading.

The Experience of Hypertext—Associative fragmentation is a cultural practice of combination, of letting memory pop up; it is concerned with the possibility of bringing together in the same space Madame Bovary, Anne of Green Gables and El Che. This possibility could be done through hypertextual practices and the use of dynamic and creative theoretical ideas such as those brought forth by Borges and later on by the collaborative work of Deleuze and Guattari. Their creative practices being associative, playful and analogous, they break with the ideological Western conception of a linear progression.

A student of comparative literature, I have been using the Internet daily for close to ten years, and an active reader, I have spent much time reading newsgroups or navigating and gleaning the World Wide Web. Even though I do not know the ins and outs of HTTP (the communications protocol used by the World Wide Web), I have investigated the idea of pedagogy of memory through hypertext as part of my daily experience on thought and creativity.

Internet and the World Wide Web are not a question of progress but constitute a new combination called hypertext. This thesis was written under the influence of its very object. It would have been interesting to be able to examine it through the use of the computer media and not be limited by the inscription possibilities of paper. My approach, which could not be constrained within a hierarchical way of thinking, inevitably led to a creative experiment. As my discourse became more scattered and diverse, it divided up into the associative fragmentation caused by memory's written language.

These scattered examples of abrupt fragments and hypertext jumps were brought together here in order to make us think about how we glean through iconic images and create layers to the point where we question how we see and sort out the component images.

The scissors-reader—What I have designated as the difference-reader or the reader-creator is the kind of reader who has the ability to put together popular western cultural icons as diverse as Madame Bovary, Anne of Green Gables, Jorge Luis Borges and Che Guevara despite any obvious linearity in the association

throughout the course of her reading or browsing.

The practice of memory in hypertext networking allows for a kind of scissors-reader that is, reader-creator-gleaner to make these icons meet. But then again, if we are able to compare and to start reading between cultures and worlds, are we still reading in order to understand?

Pedagogy of Memory—The practice of hypertext re-produces how memory functions and sensitizes us to how memory works, it reveals a potential of hypertext not yet seen. My hypothesis has been that instead of following a canonical, culturally fixed and a hierarchical unidirectional methodology, cultural practices and various media should instead be shared in order to develop what I have called a effective pedagogy of memory. Pedagogy of memory deals with how to read, teach, research, transmit, archive, and find —voluntarily as well as involuntarily—the associations provided by memory links.

I suggested that teaching or study in the humanities can act as a guide and provide a critical assessment of the way in which the new technologies influence learning and culture. Indeed the very context of the humanities and the questions asked in this broad discipline make it possible for people to learn not only a philosophy of knowledge sharing but also to question the way in which collective memory is transmitted and reused.

This new phenomenon means that we must examine our cultural heritage and its mode of transmission in a new light. It has been established that our cultural past is communicated intertextually and that we cannot understand the passed-on ideas unless we know how to move through their origins and their heritage. As Pierre Lévy writes, to move is not to go from one point to another on a surface by going into depth through nomadic worlds:

Bouger, ce n'est plus se déplacer d'un point à l'autre de la surface terrestre, mais traverser des univers de problèmes, des mondes vécus, des paysages de sens....des nouveaux nomades...²⁷⁶

The project of a digital world would be to acquire knowledge inside a collective memory and to go down knowledge lane collectively with the help of a new form of training.

This thesis worked around the question of memory and hypertext focussing on hypertext as the site of new memory practices and as the occasion for a pedagogy of memory. However, hypertext is not just a tool because memory and knowledge change through the new practice and hypertext on the World Wide Web through a personal computer functions as a mnemonic space, for it serves the purpose of a memory place or a kind of *memory place* for our various thoughts and stories.

²⁷⁶ Pierre Lévy, L'Intelligence collective, pour une anthropologie du cyberespace, op. cit., 10.

These memories are channelled and transmitted by a medium that still relies on teaching intertextual links to transmit knowledge and the acquisition of cultural relationships. With the loss of memory, do we necessarily face the loss of an aura or are we at the same time in presence of the aura? Perhaps both.

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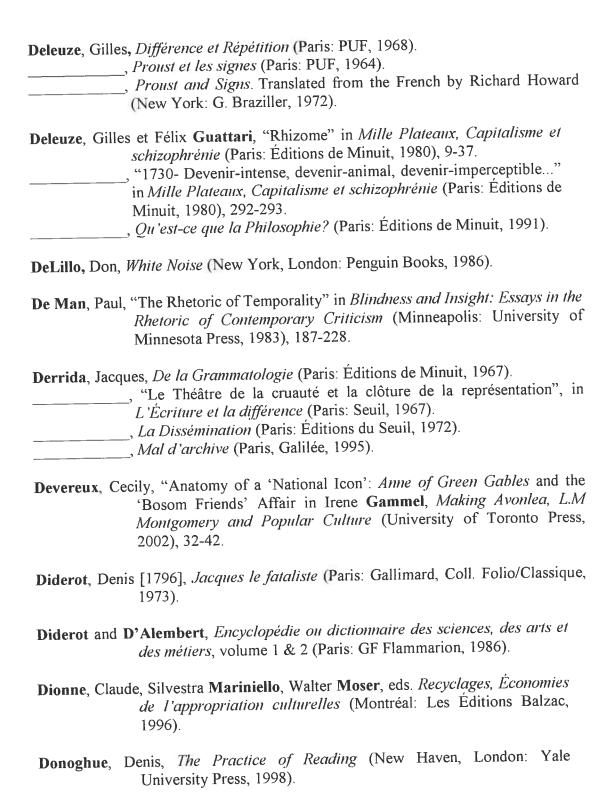
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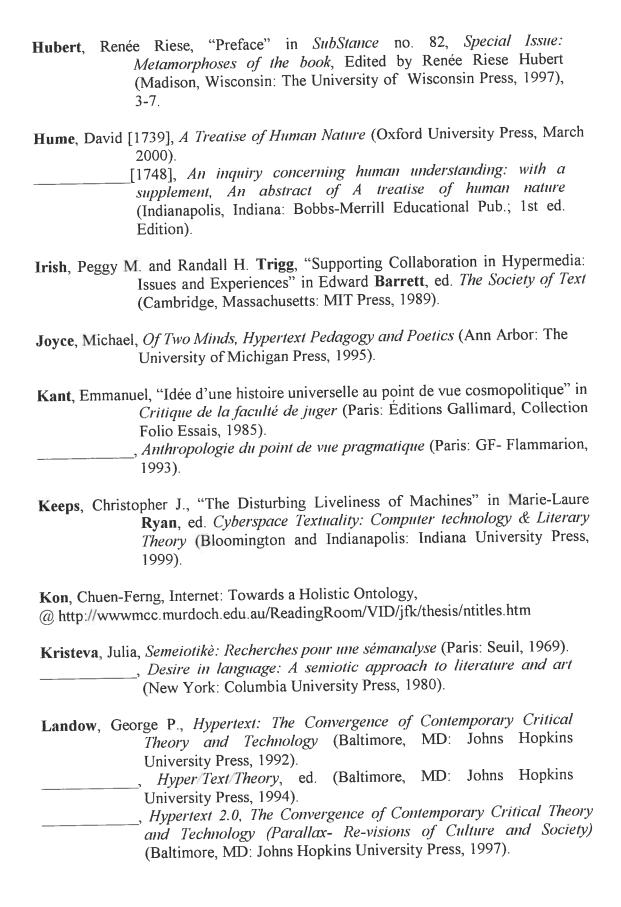
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Selected Filmography

Longo, Robert, Director,

Johnny Mnemonic, 1995, 98 min.

Producer: Don Carmody

Screenplay: William Gibson, based on his short story

Cinematography: François Protat

Music: Brad Fiedel

Distributor: Tri-Star Pictures USA / Canada

Main Cast: Keanu Reeves, Dolph Lundgren, Takeshi

Synopsis: Based on William Gibson 's short story, Johnny Mnemonic, a data courier, carrying a memory data package literally inside his head too large to hold for long, must deliver it before he dies from it.

Nolan, Christopher, Director *Memento*, 2000, 113 min.

Producers: Jennifer Todd and Suzanne Todd

Screenplay: Christopher Nolan, based on a story by Jonathan Nolan

Cinematography: Wally Pfister

Music: David Julyan

U.S. Distributor: Newmarket Capital Group

Main Cast: Guy Pearce, Carrie-Anne Moss, Joe Pantoliano

Synopsis: In an open-ended motion picture, Leonard Shelby, a man who has lost the ability to form new memories, attempts to find his wife's killer. *Memento* is concerned with memory and the manipulation of it.

Scott, Ridley, Director,

Blade Runner, 1982, 117 min.

Producers: Michael Deely and Bud Yorkin

Screenplay: Hampton Fancher and David Peoples, based on a book by Philip K. Dick

Cinematography: Jordan Cronenweth

Music: Vangelis

Distributor: Warner Bros

Main Cast: Harrison Ford, Rutger Hauer, Sean Young

Synopsis: Based on Philip K Dick's novel *Do Androids Dream of Electric Sheep?*, Harrison Ford is Roy Deckard, a retired bounty hunter or "blade runner" called into service to track down a band of superrobots called replicants in 21st-century Los Angeles.

Tornatore, Giuseppe, Director

The Legend of 1900, 1998, 124 min.

Producer: Francesco Tornatore

Screenplay: Giuseppe Tornatore, based on a book by Alessandro Baricco

Cinematography: Lajos Koltai Music: Ennio Morricone

Distributor: U.S. Distributor: Fine Line Features

Main Cast: Tim Roth, Pruitt Taylor Vince, Clarence Williams III

Synopsis: Based on the monologue *Novecento* by Alessandro Baricco about a baby boy abandoned aboard a transatlantic steamer and named "1900" after the year of his birth. The legend tells of the boy growing up on the ship and over the years becoming a virtuoso pianist whose reputation spreads across the world but who never leaves the open sea when the ship docks.
