through it systematically, I was sure I would discover that the apparent disorder of my imagery was hiding a *map*, like in a pirate story.[71]

Marker explicitly places contemporary ditigal arts in the tradition of the arts of memory:

> The compass I used is based on points of reference quite far back in history. Curiously, it is not the immediate past that offers us models for what could be computer navigation on the theme of memory. It is overly dominated by the arrogance of the classical narrative and the positivism of biology. The art of memory is on the contrary a very ancient discipline, which was progressively forgotten (unbelievably!) just as the divorce was taking place between physiology and psychology. In other words, when I proposed to transfer the regions of memory in geographic rather than historical terms; without knowing it, I was re-establishing a link with a conception familiar to some thinkers in the seventeenth century, but completely foreign to those of the twentieth.[72]

We circulate in Marker's universe as if we were in a building, moving from one room to another through doors and staircases—each of the rooms has its functions and atmospheres, which reflect and modify the people living there. Chance and subjectivity preside over the itinerary, and the cat is the guiding figure orienting the tree diagrams towards hypertext and hyperimages. Marker's multimedia writing creates the fragments of a discourse and the space of a language, the tool for representing the world and memory. This language is situated between architecture and cinema, and provides a kinetic vision of the places built. It offers the arts of memory an unexpected renaissance.

[71] *www.instantsvideo.com/archives/pmb/opac_css/index.php?lvl=notice_display&id=62*
[72] *www.derives.tv/Immemory*

Virtual Theaters and Hypertextual Narratives

Something virtual does not exist concretely, but potentially. The virtual constitutes a rupture with respect to the idea that art is a representation of reality: it does not purport to be an imitation or an artifice, rather it aims to replace the real itself. In the interactive processes between users and the system, the space simulated does not correspond to any existing space, the time simulated remains outside of any present, past or future, with no end or origin. But while in the perception of a real being, it is the movement of this real being that determines the point of view of the visible world, here it is the objects of this visible world that begin moving in the virtual gaze of an immobile observer.

Ted Nelson invented the word *hypertext* in 1965, which he conceived to be first of all literary media, while computing was for him a sub-branch of cinema. One idea obsessed him—that of bringing together nearly all of the literary works from all the heretofore published genres. Via the network, readers would have access to the texts that interested them, and could link the texts between themselves as they saw fit. Openings would be possible towards all kinds of documents. The corpus could evolve and extend continuously. New documents would make it possible to add links and itineraries infinitely. All digitizable data can now be added to these resource texts, including images, sounds, music, maps, and images in motion. Every piece of data used marks a station in the hypertextual journey. Nelson's project is the dream of an infinite library, in which books refer to other books, and the library never stops expanding. This hypertextual exploration irresistibly recalls the metaphor of the library employed by Borges in the "Library of Babel." It also makes us think of the inventions of Ramon Llull, for

whom the links between ideas and images helped to structure and organize knowledge. These techniques, which were used in medieval illuminations, were abandoned when the printing press was invented, but are being revived today in the system of links on which hypertext is based. The difference with respect to the artificial memory devised by the arts of memory, is that hypertext constitutes a sort of external expansion of human memory, which increases its possibilities infinitely, whereas the ancient arts of memory were attempting, on the contrary, to make the entire universe–and our knowledge of it–enter our minds.

What the arts of memory had first intuited—that there is time in images—is now central to the digital arts. Images in motion designate practices more than images. Images have become active, attracting the viewer's gaze, as Kafka had already observed: "the gaze does not take possession of images, it is images that take possession of the gaze." Somewhere between a cinema in which viewers are inextricably caught up in the flow of images, and the pure fiction an individual can create freely, contemporary art calls for the active participation of the viewer.

In *Eavesdrop* (Australia 2004) by David Pledger and Jeffrey Shaw, viewers sit at the center of the panoramic projection experience. They can control the movement of the camera with a dashboard, and by reframing the scene they can observe characters and listen to conversations. Among the characters present, a couple watches the viewers and speaks about them. The viewing position is staged, and the set-up gives the illusion of an inversion, with the characters in the movie watching the viewers as if they were part of the scene.

The core themes of *Remake* (Pierre Huyghe 1995) are cinema (conceived as a reserve of images and stories), spatial-temporal reversibility, and the close but ambiguous relationship between the

real and fiction. For Huyghe, fiction appears in the shadows of reality, which are zones we are constantly inventing, as if we wanted to fill in the holes in reality. His approach is a deliberate attempt to grasp the real. *Remake* is a 100-minute remake of Alfred Hitchcock's movie *Rear Window*. It is filmed in an amateurish way, and we can see the difficulties facing the actors as well as the camera operators. In his undertaking, Huyghe reveals the process through which a piece of fiction is created. In these remakes, he exploits the notion of play to escape from traditional narrative structures, distort and extend them beyond their own limits. Through the effects of *mise en abyme*, a remake enacts a critique of the narrative system structuring a movie of which it is nonetheless a remake.

The open crates that constitute the work by Sarkis entitled *The Treasure Chest of Mnemosyne* (1996) are a heartfelt tribute to Aby Warburg. For Sarkis, our memory of artistic works does not really function in terms of content, style or intention, as museology and art history suppose; nor only on the level of free association as the Surrealists imagined. Sarkis's work continues the works of Warburg and Benjamin, who perceive human history (and therefore art history) as a reserve of potential energy, which oscillates between the domination of the present and the recourse to reason by calling on historical time. For the artist, this possible energy, which is most often unused or falsified, hangs on a thread—that of the critical conscience. Time is no longer linear on this thread. It can be twisted and turned continuously, which enables forms to be created and reactivated, while taking action. This thread links the personal memory of artists to world history. In its fragility, this thread is the very matter of Sarkis's art.

The Holbein Project (1998–2000) by Catherine Beaugrand, oscillates between a house of mirrors and an optics laboratory. It

evokes the work on perspective of the Renaissance painter Hans Holbein the Younger, and in particular his famous painting *The Ambassadors* (1533). Glass architecture, a mathematical-theoretical diamond, this labyrinth of transparent screens, placed on or rising up from a metal base, is in fact the exact three-dimensional projection of the multiple points of view in the painting. Beaugrand's installation is nonetheless diametrically opposed to the geometric optics developed during the Renaissance, with the gazing point contributing to the ambiguity in exactly the same way as in Lacan. Penetrating then moving within this laboratory, the viewer actively participates in multiplying the visual and the virtual projections, the vanishing lines, partitions, and fields. *The* Ambassador*s* is generally noticed by art historians and psychoanalysts for its anamorphic skull in the foreground. The techniques of representation chosen by the painter seem to have an overall coherence, while many of the objects represented are depicted from a single point of view—each object is represented from its own point of view. The reality effect is thus condensed in objects, but these are objects the form of which seems to have been entirely subordinated to questions of seeing. Beaugrand's goal, five centuries after Holbein, is indeed to question our means of representation, and to suggest that each of us should create our own point of view.

Interactivity and Collective Intelligence

Interactivity is one of the major contributions made by new technologies. It is a function created by them, which enables real time reciprocal actions in a dialogic mode, a back-and-forth process between humans and machines. Digital interactivity is based on the principle of the universal commutability of data in the form of matrixes of numbers. Interactivity was already one of the essential

Utopia, Thomas More 1516.

Links and Community
With the creation of links, the notion of network (the web) is progressively replacing that of structure, which was inherited from the human sciences and mathematics of the nineteenth and twentieth centuries.
The term networks refers to the organic, the living (tissue), and the technical (weaving). It figures a fluid, flexible, tree-like organization, created by the computer, at both the personal and planetary levels. The web and its interactive practices provide new possibilities for reinventing Bruno's expanding universe, this sphere with no circumference the center of which is everywhere.
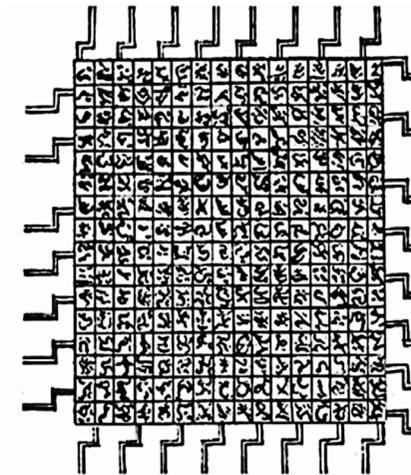
Literary Engine –Literary generator using chance and permutations – Jonathan Swift 1735

mechanisms in Camillo's Theater of Memory, as a principle of connections between knowledge and the symbolic images placed in a set of well-ordered boxes. Paradoxically, this problematic of links, central to the question of art today, is closely akin to the one Bruno asked defiantly in the sixteenth century. Bruno considered the celestial globe to be a theater of which he could carefully open the boxes one at a time. In this process, he transformed an infinite space into an arena with its own dynamics. Images are formed, reflecting on the one hand the desire to grasp the expression of life, and on the other, the need to take distance from immediacy and construct a representation of it. Seeing and representing are at the two opposite ends of an ellipsis, of which the intermediate space, the link, is to be ensured by the work of art. Art is to some extent the link between these two extremities. This search for a link between absolute science and absolute poetry cost Bruno his life. The link of all links, Cupid's link according to Bruno, the one Marsilio Ficino was already calling true magic, is the one that transforms power into acts, and acts into power. It is this force of the link that is being reborn today through the interactivity of digital processes. This force is no longer the instrument of a small number of initiated individuals, rather it is that of the entire human community, enabling us to access all the knowledge we put in common, develop, and ultimately control. It is no longer the artificial memory of a few people, but a collective intelligence, according to the expression of Pierre Lévy, which has been pushing humanity to become the subject of its own inquiry.

Only the person who had conceived the mental images of the ancient memory palaces could walk in them. This space could not be shared. On the contrary, according to Rieusset-Lemarié:

The materialization of this virtual architecture on external media, allows others to view it, or even to stroll in it in a data costume. In interactive virtual reality, we can create an imaginary urban landscape, which is no longer a completely mental landscape. We can technologically devise password protected computer assisted memory palaces. In this process, we can sketch out the contours of not only an imaginary urban landscape but of a veritable virtual city.[73]

It is in this interactive space that the memory palaces can reemerge today, with the infinite possibilities opened by a hypertextual structure. In interactive hypertext, we can all invent our own personal itineraries, moving from one step to the next by simply clicking. The private places of the ancient memory palaces can become public labyrinths, in which the person walking advances from one image to another, each new place opening up a passage to others. These new places, which are accessible to everyone, but by means of which each person can create a singular itinerary, embody a veritable paradigm shift. The creation, utilization, sharing, and development of the arts of memory now entail a collective undertaking. This new human activity also shakes up the history of representation in another way: undermining several centuries of supremacy of one-point perspective and two-dimensional representations, the three-dimensional universe of virtual realities re-establishes links with the mental architectures of the first memory palaces. "Virtual architecture would be for this reason the ideal mnemotechnical structure, because it preserves the three-dimensional nature of architecture while conferring upon it the purely virtual nature of the image, which enables the symbolic inscription and no longer only a material trace of memory to be strengthened."[74]

[73] Isabelle Riusset-Lemarié. «Des palais de mémoire aux paysages virtuels,» *Les enjeux du paysage*, (Brussels: Ousia, 1997).
[74] Rieusset-Lemarié.