Conservation of Media Arts and Networks: Aesthetic and Ethical Considerations
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"The most terrifying of all nightmares was to be without a past." George Chesbro

To speak about the conservation of media arts may seem surprising, as one knows that, in most cases, one is dealing with artworks that are immaterial and ephemeral: process-based experiences or performances whose entire significance lies precisely in the relationship or the contact the work allows to establish between spect-actors or with the environment. And in the realm of art as in other domains, one knows that all interaction is dynamic, that it is impossible to maintain a relationship unchanged, or to reproduce one that is exactly the same. Relationships transform themselves just as the perception one has of them does. The context of the exchanges, whether circumstantial, factual, existential, referential or interactional, plays a determining role in the framework of those artworks that are essentially based on the establishment of a relationship. It effects our interpretations and our reactions, and each change in context reconfigures the relationship. So how does one conserve this? Documentation Art that developed in the 1960s during the heyday of Land Art, of site-specific installations and performances attempted, notably by means of the contemporaneous medium of video, to freeze some impressions and to encapsulate certain significant moments associated to the dematerialization of the art object. But how does one capture and reproduce these experiences? And what does one preserve of the relationships that are at the core of interactive artworks. In the passage from the solid state of the art object to the fluidity and evanescence of relationships, something of the long tradition, based on the desire to accumulate, is lost. Something is lost, even though one seeks, out of habit or by necessity, to preserve it.. The challenge is not small. It operates, in fact, even at the level of the media art project. And it generates and reveals a whole series of paradoxes that fuel and moreover energize these artworks. For the purpose of this essay, I will present three principal challenges facing the artist, the art market and the art historian.

Conserve and Innovate

The mythic origin of painting as recounted by Pliny institutes a fundamental link between the desire to represent and the need to preserve. The desire of the young Corinthian to secure the profile of her lover departing on a voyage, by tracing his shadow projected on a wall, connects the primary gesture of painting with the necessity to retain a fleeting presence. The artistic gesture would translate the impulse to preserve, the desire to hold that which risks deteriorating or disappearing, into a creation. This, the very essence of representation, has as its objective to render present something that is fleeting.

From another point of view, one could also say that several technical innovations in art were motivated by a desire to conserve. The case of painting is exemplary here. As painting is itself unstable and ephemeral, many painters were motivated to experiment with different solutions and formulae in order to find a way to stabilize it onto its support, on a long term basis. Let me provide only a few examples: the shift from egg tempera[1] to oil; the introduction of new pigments and other binders; the perfecting of grinding and mixing techniques; the search for containers (pig bladders, tin tubes) allowing to preserve the ground pigments; even the treatment of the support (plaster, wood panels, canvas). These techniques represent a long series of trials and errors, experiments and inventions aiming to preserve color and the painting itself. To this, one can add all the museological knowledge developed to assure the conservation of heritage artworks against harmful environmental effects (temperature, humidity, light, etc). The history of painting is literally grounded in the outcome of its medium. And each medium, that is to say, each material impregnated by the techniques that have transformed it, contains and inscribes temporality, duration. As Barthes very well realized: "Another history of painting, not of artists' oeuvres, but of a history of tools and material, is possible…"[2]

Another element inextricably links conservation and creation. The example of the musical notation is very enlightening in this regard.[3] Before become a tool for creation,

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[1] New techniques did not necessarily replace old ones. Some are still employed with much success. A notable example is tempera whose medium is an egg base.

[2] Roland Barthes. *L'Obvie et l'Obtus*, p.194 [Author's translation]

[3] François Delalande clearly noted this in « L'invention du son », *Cahiers de médiologie*. No 18

the medieval notation originally had a conservation function. An *aide-mémoire,* giving rise to many versions, the notation stabilized itself by increasingly acting upon the transmission it facilitated between generations of musicians. One must not forget that, up until the Romantics, and particularly up until the Mendelssohns who introduced the concert-museum mode, composers only played their repertoire or those of their contemporaries. In this sense, the musical notation was a vector of transmission and of intercultural interchange, providing access to works that were difficult to reproduce as they were not permanently inscribed anywhere and they had been composed for instruments that no longer existed or that had become obsolete. One finds a similar problem with media arts as we shall see below.

Similarly, recording techniques that finally resulted in the gramophone in 1879 were conceived as a means by which to fix and to disseminate sound, well before becoming composing tools towards the end of the 1940s. Concrete music, the child of recording techniques, is first defined by Pierre Schaeffer as a "collage and assemblage, on magnetic tape, of pre-recorded sounds from diverse and concrete sonorous elements…"[4] This is also the first of a long series of transformations of musical elements that gave rise to the emergence of new artistic genres, among which include electronic music, electroacoustic music, sound installations, soundscapes, soundwalks. Records and later tapes became composing instruments that opened up the domain of sound to other artistic and ecological realms. François Delalande summarized this realm well: "The invention of 'sound' of which we speak of here is an effect of technology. Not only did the record permit one to fix, to transmit research in sound, but electroacoustic machines provided the means to leisurely work with the sound, fixed in this way by successive alterations.[5]"

Therefore, in a certain way, there was a passage or a natural shift away from conservation and recording techniques to creative techniques. It is not surprising then that the need for conservation and restoration of recording and productions are reemerging. The issue of

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Révolutions industrielles de la musique dir. par Nicolas Donin et Bernard Stiegler. IRCAM, Fayard 2004.

[4] Pierre Schaeffer. *À la recherche d'une musique concrète.* Paris, Seuil*, 1952*
[5] François Delalande. Idem

the conservation of media arts partially springs forth from this narrow dynamics between creation and conservation: the improvement of tools, always pushing the performativity of the creation a little further, inscribing its production in a long timeline of artworks under the watch of art history.

Conserve or Get Connected: Media Ecology

The digital is tied to and characterized by its phenomenal memory, in which one can store everything, sounds, texts, images. Equipped with this extension, one inevitably thinks in terms of conservation, particularly as one lives in accordance with the accelerated rhythm of the ephemeral. Documents and information to be processed proliferate much faster than the filters necessary to manage all the data one collects for subsequent examination. The case of the book is interesting here. Itself an extension of collective memory situated outside of the body, the book constitutes its own system of control and consumption. Scarcity, the price and even the weight of books, and the constraint of going to the library to consult or borrow books limited their use, bringing it down to the ergonomical level of the person and his/her physical environment. And this is without mentioning the first obstacle, literacy. The availability of downloadable books, permitting one to fulfill an age-old dream of accessing a library of all knowledge, inscribes a paradigm shift that characterizes the multimedia aspect of the digital world. On the Internet, there are no barriers, but rather a continual flux of increasingly invasive solicitations, making one realize very quickly that one pitifully lacks time and filters. Moreover this new memory is not reserved for archiving traces of the past, but rather it has as it goal the stocking of existing pertinent data for a future task. Leaving the past aside, this memory is centered upon the future, which it strives to equip and to nurture.

Hence this material extension, which is portable and easily connectible anywhere, has suddenly disqualified the very faculty that it replaces in order to respond to needs that are growing at the rhythm of miniaturization and to the extent of software performance. Thesauri and semantic search engines, from now on, will allow one to navigate data bases, which no memory or library could ever contain or manage. Similarly, new epistemological approaches, such as the ecological psychology of J. J. Gibson that

deliberately ignores memory, focus on other aptitudes: attention, perception, judgment with regard to relevance or to contextual strategy. The overall interaction is dynamic and depends on a whole series of modulated adjustments relating to changes in context and to the abilities of the agent that must interpret the information provided by the environment. The notion of environment here includes not only the place and time of action, but more broadly, the persons, the machines and artifacts, the shared culture, the predispositions and attitude of the agents (comprehension and motivation).

So, media ecology, just like mediology, is concerned with the action performed by the agent in a context, with the aid of interfaces that will direct or determine the action and the exchange. Here, precisely, lies the significance of examining interfaces in order to understand the nature, the force and the orientation of their influence. While in certain contexts like the factory or school, or in certain highly hierarchical cultures, China for example, where rules are codified and clearly enforced as such, in the case of communication that, directly or not,[6] is increasingly transmitted through the media, the determining factors are, more diffuse, veiled or camouflaged by various effects that many have set out to dislodge or have simply tried to understand. Moreover, interfaces are less and less tools through which one communicates, and tend even to become the environment. And as Neil Postman and the mediologist, Régis Debray, have very well recognized, media that comprises one's environment structure what one sees, says and does. They assign roles for us and the way one plays these roles. Here lies the need to explicate their method of influence.

Several forms of contemporary aesthetics, incorporating very diverse practices, subscribe to the basic principles of media ecology. Ever since the positions of Marshall McLuhan and the theory of *The Open Work* by Umberto Eco, diverse positions, that will only be cited here, have come together on three fundamental points: art serves to establish relationships where the spectator is called to play an increasingly emphatic role; the apparatus is a determining factor; the production of the art object becomes secondary.

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[6] See Anne Cauquelin. « L'interface : le passage d'une philosophie du goût à une philosophie de l'action », *Interfaces et sensorialité*. ed. L. Poissant. Ste-Foy, St-Etienne. PUQ, CIEREC, 2003.

For the rest, each aesthetic genre is declined by particular characteristics, as referenced by their respective labels: Aesthetic of Reception (Hans Robert Jauss, 1978); Aesthetic of the Immaterial (Jean François Lyotard, 1985); Aesthetic of Communication (Fred Forest and Mario Costa); Aesthetic of Play (Jean-Louis Boissier); Aesthetic of Connectibility (Derrick de Kerchove, Pierre Lévy); Aesthetic of Transhumanism (Fereidoun Esfandiary, 1960, Sandy Stone); Aesthetic of Parts and of Care (Oron Catts & Ionat Zurr, TC& A); Aesthetic of the Non-Corporeal (Anne Cauquelin, 2005[7])

These aesthetics have, for the most part, enhanced the value of connectivity rather than conservation, adhering to one of the basic principles of these aesthetics, which consists precisely of being as economical as possible with regard to the creation of an art object, since one remains responsible for and attributable to what one produces.[8] Are the media arts not an attempt to respond to the enormous question of the significance of the conservation of human artifacts - a question that is posed with all the more intensity because an increasing number of us are claiming the title of artist? Certainly, this preoccupation is not new. It was one of the motivations of Futurism at the beginning of the 20th century when the young artists, so driven, saw the war as an opportunity to create a physical, but especially a psychological, space that allowed for a *tabula rasa* and the rendering possible of the emergence of new artforms, in a context where museums and the art agenda were crumbling under the weight of the past and were leaving no space for the advent of a generation of artists with new ideas. The media arts chose a less brutal, but not less radical, path by displacing a large part of creativity and space for intervention onto the net. If one adds that the issue of memory is rendered banal thanks to the continuous upgrades that one obtains for practically free, one can understand that one is witnessing a fundamental shift in direction and in tendency. Whether the realm of science, economy or art, one is slowly leaving the register of accumulation, observation and classification, advantaging an approach based on connection, manipulation and redesign.

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[7] Anne Cauquelin. *Fréquenter les incorporels.* Paris, PUF. 2006
[8] Moreover, it should be noted that museum curators increasingly work at encouraging new media artists to develop this reflex, having them document the installation of their work, the programs and the technologies employed in anticipation of a subsequent exhibition. Certain even go so far as preparing, by contract, solutions for replacements in the event that a technology becomes obsolete.

One is turning towards other forms of more plastic and flexible connections, indefinitely reconfigured so as to remain adapted to the context and to the needs of the alter-actors. This new register is not any less anxiety-producing.   It is all the more so because one has not yet developed the equivalent memory-linked safety nets such as books, archives, and all the mnemonic devices: all those aids that, in order to assure preservation of the trace, continuity with the past, gave way to so much creativity. What the connectionist fears is not the blank memory or instances of breaking with the past, but failures, discontinuity, interruptions in the present. Söke Dinkla pointed out that it seemed that: "The driving force behind connectivity – whether urban or digital – is the fear of disconnectivity. This sense of being linked, which often lasts no more than a few seconds…is fed by the fear of being cut off. Networks – whether digital or urban – are vulnerable. They are thin, invisible, and, because they are influenced by constantly changing factors, often unpredictable."[9]

Conserve So as Not to Repeat

Envisioning the conservation of network art becomes all the more problematic as networks are developed and visited at the rate they are updated, and therefore because of the rapid stream of data found there. A site that is not regularly updated is quickly abandoned. Now, it is known, and this has been the object of many critiques of Google - the popularity of a site depends on its rate of visits, leading to the development of tricks to artificially boost their site. Here one encounters the circular statement: it's fresher because more people eat it; and the more people eat it…. Now, one understands that in this run-away race, one gets caught up in certain aberrations, one of the most frequent of which is being served, without knowing it, a reheated platter or one that is not at all fresh. One could certainly give as a reason that "flowing waters always change," but it is nonetheless irritating to be faced with an imposture or a naïve approach that pretends to be innovative while it reproduces, and often less adeptly, an element already employed in a previous art installation.

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[9] Söke Dinkla, "Are Our Eyes Targets" *Connected Cities.* Duisbert: Hatje Cantz Verlag, 1999, p. 25.

One must nonetheless add that despite the era of communication in which one is evolving, it is not always easy to find pertinent information. Profusion, hodgepodge, or on the contrary, lack of documentation. This latter situation being all the more frequent as far as the media arts are concerned, whose history is just beginning to develop. One lacks the visual documents, and sometimes even descriptions, allowing one to understand and reconstruct artworks. Add to this scenario, the lean history of media arts, which often made the few artists, concerned with preserving a trace of their interventions, turn to video, an electronic historical record. As one knows, they have been victims of the volatility of this magnetic device that (should one interpret this as a sign) flaunted itself as being the memory of the ephemeral and of factual history that one could finally fix, in real time, with sound and motion. In this sense, video is emblematic of the questions raised here and of the ambivalences that relate to the emergence of new paradigms. False promise of an easily accessible memory, of that which was impossible to record, it engendered two opposing attitudes. On one hand, it created new expectations and motivated research on more long-lasting, even permanent, devices; on the other, it inspired deliberately ephemeral practices, aiming to break from the long tradition of the desire for permanence. But through both these directions, one understands that conservation and its finality, memory, are obvious. And one of the foundational dimensions of artistic activity, if one believes Pliny, is seriously put into question.

Moreover, the demand for originality associated to the creation of art is also indirectly affected by the lack of documents linked to the history of media arts. And one discovers, now with surprise, that certain steps, flaunted as being innovative, had been anticipated, conceived or even already completed. In a context where the race for novelty dominates – let's not speak about *new* technologies? – documentation, which one often calls 'old' is necessary. It is, in effect, quite annoying to witness for the umpteenth time another version of a first or of an original. And if artists are only partially responsible for the

illusion of being pioneers when, unbeknownst to them, they have antecedents, the imposture is not less embarrassing.[10]

Conserve, How?

In order to correct this state of affairs somewhat and so as to render accessible as much information about the short history and the ongoing projects in the domain of this kind of art as possible ,we initiated the project of Observatory of New Media, of which I would like to say a few words. But it was also to assist museum curators, struggling with new media artworks they are no longer able to exhibit that the Daniel Langlois Foundation undertook an important project entitled: Documentation and Conservation of the Media Arts Heritage: Research and Case Studies.

The Alliance Set Up by the Daniel Langlois Foundation

Indeed, several museums are experiencing serious problems preserving artworks with a view to keeping them in circulation. Certain parts of the equipment or mechanisms are faulty and one is unable to repair or replace them, sometimes simply because one does not have information about the way they operate. Evidently, technologies themselves do not cease renewing themselves at an accelerated rhythm, leaving behind a cemetery of equipment no longer with any competent expert to operate them. Formats change, standards too. There was a time when one associated the specificity of video to the fragility of its signal, with its customary parasite of "snow", as one called it in Quebec, elsewhere one spoke of "frying noise.". The performance of high speed and real time technologies also rendered certain, albeit significant, artworks obsolete, and those which one needs to be put into context. The presentation of certain of these works require technological proficiency in order to simply render them accessible in their original context of a presentation that employed duration or a relation to time that is no longer operative in contemporary artworks. In effect, each artwork brings with it an array of problems and challenges that one needs to examine in order to offer *ad hoc* solutions,

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[10] Besides the Foundation, several institutions are involved in this project: the universities UQAM, McGill, University of Montreal, Queen's; museums: Museum of Contemporary Art of Montreal; Montreal Museum of Fine Arts, New York's Guggenheim Museum, and several international collaborators. For more information on this project directed by Alain Depocas and Jean Gagnon, see http://www.docam.ca

adapted each time to the artist's desiderata or to what one believes best corresponds to the wishes of those no longer here. Different options are available: refresh operation, emulation, migration, reconfiguration, adaptation, reinterpretation[11]. But all these approaches, often indispensable for the dissemination of an artwork, make it nonetheless lose its historicity. In fact, let's admit it, what all these artworks, comprising a technological component, have in common is that in the more or less long term, but in general quite rapidly, they will no longer be functional. Worse even, putting them back in running order poses the difficult question of their contextualization. Indeed, how to take into account the slow speed of certain devices or the amazement of spectators for the first telepresent performances when, already at a very young age, they interact from remote locations and at high speed. Indeed, this situation is all the more disturbing in that curators, art historians and art restorers do not have the necessary training to adequately address the new problems of documentation and preservation of artworks with technological, electronic or digital components.

This is why the Foundation developed a three-part project:

The first part of the project develops the tools and the necessary directives for the history, analysis, description and classification of the technological components used in the technological and media arts. Among these tools are: a bilingual glossary and thesaurus, managing descriptive vocabulary applying to documentation, to themes, to instruments and to technological components, as well as a typology and structure for the cataloguing of these artworks.

The second part of the project elaborates the documentation strategies adapted to these works and should allow for an overall comprehension of the place that these artworks occupy in the history of media technologies, as well as their artistic uses. Different record collections and archives are the object of multidisciplinary case studies so that a serious analysis might be conducted. This part of the project also aims to

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[11] Jon Ippolito had written an important article on these topics in an anthology devoted to conservation of media arts: "Accommodating the Unpredictable: The Variable Media Questionnaire", *The Variable Media Approch*, Montréal & NY, FDL & Guggenheim Museum, 2003. Dir. Alain Depocas, Jon Ippolito, Caitlin Jones. p. 47 – 54.

develop managerial tools and access to documentary resources adapted to these works. A techwatch and the development of a timeline will be included.

The third part of the project is the conducting of technological and methodological research on the preservation of electronic and digital artworks, by proceeding with case studies on artworks that pose complex preservation problems. These studies will be recorded, in part, as video clips consisting of interviews with artists, curators and theorists on the problems engendered by the conservation of these artworks. We will also establish a guide of the "best practices," intended for the principal participants

Observatory of New Media

If the Alliance is mainly interested in preservation in view of re-exhibiting artworks, in a complementary way, the Observatory is primarily concerned with the dissemination to artists of the most recent information in view of pointing them towards promising, ecological technologies. By ecological, one means here: those for which one guarantees, from the conception of the artwork onwards, a follow-up service; and where the artist therefore foresees the means by which to update his/her work. But one will have understood that the principal objective is to assist artists by providing them with a technological and artistic watch that ensures that they will not unknowingly repeat the steps already taken or currently under development elsewhere.

The more specific objectives of the Observatory are the following:

- To consolidate, in concert with the Foundation and the Alliance, efforts and activities already existing in our community (the Center of Documentation of the Foundation, the Techwatch of CIAM, the Dictionary of New Media arts of GRAM, the activities of the watch linked to the Hexagram axis, etc.)
- To favor a look-out mission and a strategic watch devoted to completed research-innovations and to keep up with the broad trends in new media, interactive media, installations, electronic music creations, in multimedia spectacles, and in the

cultural industries linked to digital creations. More precisely, this refers to an artistic, esthetic and technical watch at the international level.

- To identify internationally the centers and the researchers, their specific domains, and to create links between them.
- To establish databases and gauges by which to assure the validity of the data.
- To produce syntheses in response to needs of research groups
- To anticipate the evolution of markets and the employment of new media, and to improve delineation of the new media arts domain in relation to new technologies, science and the media, by elaborating on certain new themes such as the link between art and biology, art and ecology, art and design, art and the environment, etc.
- To strengthen the general awareness of Montreal and eventually international players so that they might work together more often, as the current milieu is quite dispersed and fragmented.

But even if the Observatory aims above all for originality and for the innovative aspect of future works, the question of conservation is not absent since, as Jones and Beagrie[12] have very well recognized: "Creation is the starting point for long-term archiving and preservation." The Alliance and the Observatory moreover work together in a complementary and collaborative manner in order to develop: - tools, methodologies, and know-how so as to help artists and curators; - deliberation and conceptions to further theoretical research in the domain; - expertise in view of training competent personnel. One can follow the state of progress of these two projects on their respective sites.

In Way of a Conclusion

One can ask oneself sometimes, but why conserve? In the *Guerre du faux*, Umberto Eco already posed such a question and cited the example of the museum dedicated to a former president of the United States, the L.B. Johnson Library and Museum, that contains 40,000 containers, 35 million of pages of manuscripts, 500,000 archival photographs, thousands of artworks, statues, paintings, the faithful reproduction of the Oval Office of

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[12] Neil Beagrie & Maggie Jones. *Preservation Management of Digital Materials: A Handbook .*   "
British Library. 2001

the White House, etc. The site is a must for a fan or an historian studying the question but, for the profane, it turns into fetishism or the ridiculous. Of course, one understands that digital archiving allows one to avoid the physical unwieldiness linked to such bulimia. But it itself poses and engenders other problems that one can group into three broad categories: *Proliferation and filtering*: how to manage the endless increase of personal and institutional documents in circulation on the Net? How to avoid the impostors, those who are incompetent? How to authenticate sources? *Copyright and marketing*: How to recognize intellectual property? How to avoid plagiarism? How to market productions dedicated to the Web? *Virtualization and communication*: One can at last ask oneself how to profile the subject-agent whose entire memory will be conserved in a purely virtual format, without directly accessible material devices. How to deal with this subject's relation to others and to the environment in a context where the essential part of his/her activity occurs on the Web?

One understands that a large part of these questions, revolving around the reconfiguration of the human, are not there, to borrow the expression of Gregory Stock[13], to reassure. In this period of rapid change where all attention seems turned towards future possibilities, the question of the trace is operative. And if it is essential to recognize oneself in future projections, it seems not less vital to have tangible points of reference of one's past. If not, to cite John Steinbeck, "How will we know it's us without our past?"

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[13] Stock, Gregory. *Redesigning Humans : Our Inevitable Genetic Future*. NY. Houghton Mifflin, 2002.