Conversation between Alan N. Shapiro and Franco Torriani about Gianna Maria Gatti's *The Technological Herbarium*

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Franco Torriani: In your text introducing Gianna Maria Gatti's *The Technological Herbarium*, I have the impression that you consider some major currents of the relationship between the arts and the techno-sciences, the trend of the coming together of nature and (new) technologies, the continuous evolution of the link between 'natural' and 'artificial', and the glimpse of a *new real* (italics is yours). It seems to me to be a vision opening onto a new worldview. Do you agree on this point?

Alan N. Shapiro: It's not easy to reply to your excellent question without repeating what I have already said in my preface to *The Technological Herbarium*. I think that it is at some point psychologically critical for a thinker to avoid repetition. I definitely feel that the collaboration between Gianna Maria Gatti and me, which has had as its concrete result the English edition of this amazing book, amounts to the documentation of the vision of a new worldview. It is the birth of a new worldview beyond the binary oppositions and dualisms that many of the great thinkers of the 20th century, like Varela, Bateson, Heidegger, Merleau-Ponty, and Derrida, pointed out. And not just talking about overcoming dualisms but living that.

It is never easy to enter a new world. I have long been an admirer of *Semiotext(e)* and Sylvère Lotringer, who I think did a remarkable job of introducing many of the most original European thinkers of an earlier generation to the English-speaking world (Baudrillard, Virilio, Lyotard, Deleuze, Negri, etc.). But those thinkers belong to the generation of 1968. I am from New York, and I have been living in Europe since 1991. I think that *Semiotext(e)* has kind of fallen asleep on the job as far as looking for and helping the Next Generation of original thinkers in Europe. So has the MERVE Verlag in Germany, they are asleep.

A few years ago it became clear to me that Gianna Maria Gatti, Caroline Heinrich, Steve Valk, myself (!), and a few others, Jeffrey Gormly, Michael Klien, Franco La Polla, Marc Silver, Rene Capovin, Pier Luigi Capucci, etc. (more names are at my website, www.alan-shapiro.com) are among Europe's most original thinkers today. So I am doing what I can to help promote the work of these thinkers and writers. But it is very difficult. There is really no help from anywhere. When I first decided to translate *The Technological Herbarium* into English, in 2006, I was thinking that I could produce an entire book series of New Philosophy and New Critical Theory for the 21st century, on the model of the *Semiotext(e)* Foreign Agents series. But there is no financial support for such a project. Too bad for the progress of Western culture and society! Thinking that is new does not fit into the old paradigms. And since almost everyone is still thinking in the old paradigms, they cannot recognize what is truly new.

With some effort, however, those with leftist institutional power could understand what we are doing in our texts. Our work is deeply connected to the previous generation of thinkers, yet it is much more informed about media and technology, and it is not a mere academic commentary on the

canonical works, as are almost all books published by the university presses. In critical and cultural theory, the university presses are publishing a rather endless academic commentary, I would say, on a previous generation of great thinkers. It is a lot of repetition. And Slavoj Zizek, who seems to be their Number One Guy, relies heavily on Hegel, Marx, Freud and Lacan. My work is not academic commentary, and it is based on Baudrillard, Virilio, Deleuze, Derrida, Foucault, Sartre, Bateson, Haraway, and Butler. Gianna Maria Gatti's *The Technological Herbarium* is based on Merleau-Ponty, Varela, Portmann, Bateson, and Heidegger. Caroline Heinrich's books, like her untranslated *Philosophy of the Victims of History*, are based on Baudrillard, Benjamin, Nietzsche, and Kafka. Steve Valk's and Michael Klien's work is based on Bateson, Debord, Elsasser, Bion, and Forsythe. Jeffrey Gormly is influenced by science fiction, existentialism, and the great Irish novelists and playwrights.

One could say that, so far, we are operating underground. We have read seriously the great thinkers of the past, but our contemporary situation is so different from, say, the 1960s - the last time that there really were great thinkers - that what is first and foremost required is a lot of original thinking. I think that Slavoj Zizek is basically barking up the wrong tree. I love European Intellectual History, that's what I studied at Cornell, so it's of course paradoxical. But it's really much more important, in my view, to see that Hegel, Marx, Freud, and Lacan - and even Baudrillard, Derrida, Deleuze, and Foucault - they cannot really help us, hardly at all, to move forward in the mess that we are in today. A Supernova Explosion of new phenomena and new realities has taken place, and only truly new original thinking can help us.

FT: Before entering into Gatti's reflection either on non-human life forms or on techno-sciences and media culture, I had the impression that you are very much attempting to underline that, in perceiving the author's book patterns, the reader needs to be clear that the 'non-human life forms' mix and include both the Vegetable Kingdom and Artificial Life. This is very true and important. In recent years, vegetable life has been considered more attentively than ever, perhaps as a consequence of the decline of the dominant position of humans, and also as a result of the progress of the Life Sciences and related technologies. What is your opinion on this matter?

ANS: When I was in India in January 2008, I had a hallucination. It was not provoked by taking any drugs. I don't do drugs. It came from somewhere deep within my mind (a mind connected to other minds). I felt like I was having a premonition of something that I will live sometime in the far future. Mainly I hope that I will never live this. It was about insects. Sometime in the future, we will be a *Star Trek*-like radical pragmatic-utopian company of scientist-explorers. We will have a miniaturization technology just like in the *Star Trek: The Animated Series* episode "The Terratin Incident," where Kirk and the *Enterprise* crew encounter the miniature city of an intelligent alien civilization. In order to establish First Contact with small intelligent aliens one has to go small oneself. Insects are alive and intelligent, more alive and more intelligent than we assume in our Western anthropocentrism, and at some point we will want to and we will be able to face them, to see the world from their viewpoint, to eat the same food that they eat (we'll "break worms" with them). This is already implied in the Disney film *Honey, I Shrunk the Kids* (1989).

Once we get beyond the Arrogance of Man that Foucault identified, yet continue to value highly the courage and audacity and rigour of Humans as Scientists, then we will start to value much more all kinds of life-forms. Working in depth on Gatti's book made me appreciate and respect much more the life of vegetables. Adolf Portmann's notion of the interiority of plants is amazing. But I still eat them! How exactly the convergence between natural and artificial environments will take place, and the convergence between semi-living software objects and really alive trees and plants will take place, is not yet clear. But we have to start somewhere, and there have already been a lot of test

flights, many of them described in this book. As Sommerer and Mignonneau point out in their artworks, technological art is a living system. We need to work on life, beauty, and systems all at once. Not an easy thing to do, but the book *The Technological Herbarium* is a testimonial of so many of the artists and artworks who have already been doing this. So that is the trend, and Gatti did a great job of both describing it empirically and drawing larger conceptual conclusions from it.

FT: You are a follower of quantum physics and I appreciate that you consider that, in our environment - in our ecosystem, all the living organisms living in an area plus the so-called nonliving components of their environment - all is mutating continuously. Is this an almost underground set of links that interdisciplinary works of art like the ones presented in this book are exploring?

ANS: Yes, it is an underground set of links, of patterns. The idea of underground is very apt. And it is very related to dance. My most elaborate statement so far about this is the text that I published at www.choreograph.net called "Dear Grace (Patterns are Everywhere Remix)." This text was a collaboration with Michael Klien. Please allow me to quote from this text:

"Patterns are everywhere, anywhere, and nowhere. Patterns are in between, ephemeral yet real. They exist in parallel to what we commonly call reality. We can only perceive them if we are precisely tuned in to their wavelength. They only become visible to us under certain specific conditions. But these absently present patterns govern our lives. Work routines, planetary systems, ordinary life, and daily conversations are all governed by the subtle framing of patterns. As the scientist-philosopher Gregory Bateson reminds us, it is the supremacy of patterns 'that connects the crab to the lobster and the orchid to the primrose, and all of them to me and me to you.' What Bateson foresaw in his seminal work was the initiation of a shared collective project of friends to imagine and bring about through social choreography a vivid awareness of the profound structures and dynamics that underlie the true realities of nature and human existence. Patterns are flexible and ambivalent. They are fluid constellations, continuously appearing and disappearing, crystallizing and dissolving, being born and dying. They are an ongoing dance of creation and de-creation in our environmental habitat and our species-being. They provide an elegant frame to guide our becoming airborne and our flight. Surrounding this dance is a world full of interactions, arrangements, relationships, instantiations, dependencies, and ecologies. To enquire into this world of everchanging patterns and spirited forces at play is to explore the choreography of life, to interrogate what it is that makes us dance and why."

FT: I understand while reading some papers of yours that, if we assume that it is possible to consider more intuition and feeling, we can live our present better. We need, to quote some of your words, to develop our intuitive knowledge. A knowledge that is not only tangible.

ANS: Going back ten years, before I started my Gestalt Therapy with Jerry Kogan, I was out of contact with my feelings, emotions, and body. As an intellectual, and as a male, I was out of touch with my feelings, emotions, intuitions, embodiment. The main question of my psychotherapy was and still is: how can I be creative, in the sense of an artist, a thinker, a scientist, while keeping my feet on the ground in all ways? Because I wanted and want to live a meaningful life, not just be a cog in the machine of the prevalent Fordist-Taylorist system of workaholic production, and not just be a professor either, where you write for a credentialization system.

Notice how Jacques Derrida, at the end of the film about him made by Amy Ziering Kofman, cringes at the suggestion that he should undergo a psychotherapy or psychoanalysis himself. And Derrida was constantly singing the praises of classical Freudian psychoanalysis to the skies. And I

haven't noticed Slavoj Zizek talking about his own psychoanalysis. I say, put your money where your mouth is. The biggest divergence between Zizek and me is on the question of which psychology is important for the renewal and future of radical social theory. Ever since the 1970s, leftist cultural intellectuals have maintained the position that only classical Freudian psychoanalysis, and Lacan, who is supposedly very close to Freud, is of value. This is Zizek's position, as far as I can tell. And it was also Adorno's and Derrida's positions. See the witty yet wrong book by the "Frankfurt School" intellectual historian Russell Jacoby, *Social Amnesia*. Jacoby dismisses Adler, Maslow, Rogers, and Fromm.

I am interested in other psychologies: especially Jung, and Gestalt Therapy, and existential psychoanalysis (Sartre and R.D. Laing and Thomas Szazs), and the inauguration of serious dialogue between Western psychology and Eastern Buddhism, and Indian spiritual traditions. It's not that I have no relation to Jacques Lacan. One of my best friends, Marc Silver (American and a professor of linguistics at the University of Bologna), whom I have known since I was 14, got a Ph.D. at one of the Freud-Lacan schools in Paris, and is deeply into that stuff. So I have a real connection to it, and I wrote about Lacan in one of my essays on consumer culture. But many "critical intellectuals" whom i have met who are into Lacan have never made a psychotherapy themselves, and I have often felt that their intellectual critique of capitalism and the world was a big armor of defense to not confront themselves existentially.

The "stance of the critical intellectual" is a big problem, I think. The critical intellectual congratulates himself on his high intelligence, allegedly superior to ordinary people, and joins some elite club. Baudrillard saw it differently in In the Shadow of the Silent Majorities: the masses are secretly intelligent. In the Shadow of the Silent Majorities is a crucial text for the sociology of contemporary societies. It is less than 100 pages, but no one in Germany has read it. Oskar Negt has a reductionist idea of what would constitute resistance to the current capitalist system. Negt wants "political education of the democratic subject" (my paraphrase), and he evaluates "idiocy" only negatively. To be an idiot is also something positive, like idiot savants. Anyone who has read Sartre on Flaubert, or seen the film *Rainman*, knows this. In the precise context of resistance, I would say that silence and inaction by the masses are a secret form of resistance against a very repressive social order, against the simulation of democracy which is our media culture of "pseudo-free expression" that tries to compel people to speak, but in a way that has no real impact on anything. The masses "play dead" as a form of resistance against capitalism. This is why fan communities - of TV shows and sports and music sub-cultures like gothic - are important phenomena of resistance that could be radicalized. Negt's concept of what constitutes Widerstand, as he expressed it recently in his interview with Der Spiegel, is very narrow. The German sociologists have never heard of simulation, as if Baudrillard had never existed. The German sociologists have never heard of fan communities, as if Henry Jenkins doesn't exist. I have always been interested in Frankfurt School critical social theory, but, taken by itself, it is a provincial perspective.

FT: What is your position on Artificial Intelligence, is there a place – and if yes which one - for the Singularity if you state that "...AI is already implicit in the object-oriented paradigm of software engineering..."?

ANS: Well, that's a great question. There are many interesting and brilliant people around, doing important work. For example, at www.ted.com, and other similar venues. But like the Scarecrow in search of a brain, the Tin Woodsman in search of a heart, and the Cowardly Lion in search of courage, what these people generally lack is *true interdisciplinarity*. Scientists don't take art and literature seriously as fields of knowledge. And that's just one example. The Singularity will happen when we unify all the knowledge of humanity, all fields of knowledge. And this will require

thinking. As a prerequisite to Artificial Intelligence, we first need to become intelligent ourselves. The Taylorist-Fordist assumptions that very few people so far have questioned are holding us back from becoming intelligent, since capitalist work in its current form, including the work of professors at universities, is all about specialization. One area of interdisciplinary knowledge that hardly anyone takes seriously is Jung's idea of the collective cultural unconscious applied to film and TV. The Star Trek technologies can happen, can be brought to fruition, if we want to build them, because they have already been imagined in the collective cultural unconscious, which is expressed in film and TV. Another area of interdisciplinary knowledge that no one has yet taken seriously is object-oriented software engineering combined with radical linguistics-slash-semiotics à la Derrida's grammatology. When we succeed at combining these two advanced forms of knowledge, we will get AI. At my website, www.alan-shapiro.com, I recently published a series of 13 articles about this interdisciplinary project: "Gödel's Incompleteness Theorem in Java Code," "Jacques Derrrida and the New Computer Science," "Computer Games and New Mathematics," "Deconstruction and the Q-Bit," "Augment the Inheritance Mechanism of Object-Orientation with Resemblance," "The Superfast Clock," "The Elastic Clock," "The Metronome Clock," "The Instance and the Shadow," "Instantiate a Much Richer Software Instance," "The Answer to the Question of Artificial Life," "Inscribe Philosophy into the Heart of Computer Science," and "What Is the New Computer Science?"

We need to think about what is the computer and what is Computer Science in the context of the philosophical-sociological question of the Other, in relation to the philosophies of Levinas and Buber. In Western history, whenever we encountered a radical Other, the victims of history, we always did one of three things: we excluded, subordinated, or killed this Other. That is the history of colonialism and imperialism and genocides, for example. Where does the computer stand in the history of our non-friendly relationship to the Other? The Computer Other is like the human victims of history, except for one difference: the Computer Other is guaranteed to shut up. We do not grant to the computer any subjectivity, rights, consciousness, or life. We decided at the start that the computer is just a machine. It is our work-slave. The invention of the computer is a sort of whitewashing of history, to use a phrase of Baudrillard. Seen from this perspective, the dream of Artificial Intelligence, as the mainstream computer scientists have imagined it for these last 50 years, is a very big joke! It cannot happen, and it never will happen (without a major paradigm shift taking place). AI as it has been talked about for 50 years is a fanciful imaginary fake projection, a projecting extension of what computers already are in the simulation paradigm of slave-computers. The major paradigm shift would be to grant computers subjectivity and rights, to see them as a Socratic counterpart (Rene Capovin's term), a friend of humanity. And we must transform the subject-object that is humanity, the human sciences, into a dual system of humans and androids, as in quantum physics.

FT: I agree with you that in her book Gianna Maria Gatti considers the relationship between Natural and Artificial as mutually beneficial, and she does not have a dogmatic approach to the 'authenticity' of Nature in a binary opposition to the 'imposture' of the Artificial (single quotes are yours). The Life Sciences, New Media and New Information Technologies have put anthropocentrism under critical scrutiny. Do you think that this book gives us an appropriate and significant list of the artists who have most contributed to this trend?

ANS: Yes and no. It is a very significant list of many of the artists who have contributed to this trend. But, of course, there are other artists who have done significant work deconstructing anthropocentrism and who are very deserving whom Gianna Maria Gatti does not mention in her book. I am sorry about this. Her book only goes up to 2004. However, looking at books like Rachel Greene's *Internet Art*, Michael Rush's *New Media in Late 20th-Century Art*, and Mark Tribe and

Rene Jana's *New Media Art*, I see that Gatti is quite consistent with the selections of artworks made in those books. More emphasis on video art would have been good. Video art goes back to the 1960s and 1970s, and Gatti's chronology perhaps starts too late. I am very interested in the work of the video artist Ira Schneider, http://www.ira-schneider.com/artist/index.html.

Gatti's book is the first and only book, as far as I know, to deal with technological art while transcending the genre of the academic-journalistic-curatorial survey of artworks, you know, the kind of books that academic presses like to commission. *The Technological Herbarium* contains real knowledge, not just information. In media studies, the ambivalent, even regrettable, situation with books is similar. The academic press commissions a series of anthology books (with contributions by many Assistant Professors engaged in credentialization through publication) called "Philosophy and Popular Culture" (*The Philosophy of the X-Files, The Philosophy of the Simpsons, The Philosophy of Seinfeld*, etc.) or "Reading Contemporary Television" (*Reading Lost, Reading CSI, Reading 24*, etc.) I'm all for something along the lines of these kinds of books, but the methodology they are currently following is reductionist and ass-backwards. These books give a privilege, for example, to the discourse of philosophy, and they ask, how can we apply the knowledge of philosophy to this or that TV show. To me, the TV show is a much more advanced form of knowledge than philosophy. Let's start to perceive how the TV show is really something new. I like philosophy, but the time has come to go beyond it. A Supernova Explosion of the new has taken place, and philosophy can only help orient us up to a point.

Getting back to *The Technological Herbarium*, we need two more companion books to this volume, a sequel and a prequel. Maybe the Center for Art and Media in Karlsruhe will give me some financing to help produce these books.

FT: I understand that the deconstruction of anthropocentrism is mainly a Western attitude, but we have today a wider West than the one we had during almost a half-century of cold war. Do you think that anthropocentrism and the quite recent critique of it can be related to a millennia Genesis effect? How are artists' visions and practices related to this almost cosmic pattern? On one side it is true that artists working with living systems, cells, transgenic techniques, and tissue cultures are particularly sensible to this set of topics; on the other side, there are patterns, I quote your words, which are everywhere, anywhere, nowhere... Your *in between* is an intriguing concept, my impression is that it covers a wide field of relation processes going from the simulation of life to the direct action on living systems. Ephemeral yet real, as you say. I am also convinced, to make myself understood, that simulations are not illusions and that they implicate real sensory perception.

ANS: Wow! Has my spiritual journey so far in life qualified me to answer such questions? I am deeply honoured to be considered as someone who might be able to formulate answers to such amazing questions. I believe in God, but to me, God is more of a question than an answer. Debates between skeptics and believers about the existence of God almost always beg the question, because they take as an assumption that we know what the signified of God is, and then we debate if that signified exists or not. The shattering of anthropocentrism shatters the anthropocentric image of God that derives from our image of Man. A supernova explosion of knowledge has taken place, and we are extremely unprepared to deal with the new situation. We are rather *Lost*. Heidegger was right in saying that there will come a time when we need to do some very serious thinking (embodied thinking). That time is now here. The perspective of atheism also has some validity.

Millennia Genesis effect and cosmic pattern, yes, I agree. In my Preface, I spoke of the work of these artists as an "oeuvre-in-movement co-authored by new media/new technologies artists and their muses who, to express it *eco-poetically*, are secretly transmitting knowledge and inspiration to

them from the elsewhere of the wounded planet Gaia finally starting to defend herself and her future." Instead of sending out space probes to look for a friendly transmission from an intelligent alien civilization, we should try to understand the friendly transmission embedded in our own networked collective mind and in the bio-program which is the history of life. That friendly transmission is telling us that we are just at the beginning of the story, a better story.

On simulations, I think that I took or adapted the concept of *in between* from Merleau-Ponty. I totally agree with you that the status of simulations as reality is just as valid as any "natural" real. However, I think that your use of the word "illusion" in the phrase "simulations are not illusions" needs a bit of a revision. It would be better to say "simulations are not fake," because I think that intriguing simulations as we want to create them are illusions. The word "illusion" has a very positive meaning for me, way beyond its negative association with fake. Baudrillard developed this advanced meaning for the word "illusion," a radical illusion beyond art that he wanted to welcome, achieved in partnership with the objective illusion of the world. This was a great discovery of his, a scientific discovery.

FT: The authors I am referring to in this double vision of presenting instead of representing Life are mainly Hauser and Gumbrecht and, as another philosopher, Nicole Karafyllis, says: "...at present we are experiencing a general tendency towards rematerialization in new media art, which is taking place in light of an ongoing biologization of the soul..." (Karafyllis's paper, "Endogenous Design of Biofacts", in the catalogue of SK-INTERFACES, edited by Jens Hauser, 2008). I am persuaded that Gatti's *The Technological Herbarium* echoes this tendency very attentively.

ANS: Following on this, let me now ask you two questions. As I understand it, you have been working closely together with Gianna Maria Gatti on an archiving project in Turin for many years. My impression is that you were one of her two mentors (the other being Pier Luigi Capucci) who inspired her and guided her in the writing of the book (which was originally a Masters' Thesis). How did it come about that a student of art history wrote such a brilliant and important book? Is there any background information about the genesis, the history of the development of the book, that you can share with us?

FT: It is a good question. I do not have a well-defined answer to it. I am convinced that Gatti has a natural talent for doing extraordinary work in complex borderline researches. Maybe the exactitude of her approach has sometimes been harsh in applying it to such a promiscuous area where the arts cross and interfere with sciences and technologies. Having said that, I am persuaded that at the University of Bologna, where she graduated with Professors Pier Luigi Capucci (who was her thesis' supervisor) and Alessandro Serra as her mentors, she was in a excellent environment to develop a work like the book we are talking about. In my opinion, one of the great merits of the book is that it is based on a profound analysis of the artworks and of the artists' practices over the years. Of course, there are other significant artists who could have been mentioned, but, for the years that she is examining, Gianna Maria Gatti made very good choices. I would say that the sample is realistically representative.

As you write, this is not a usual academic commentary. It is an amazing book also if we consider when it was originally realized. To me, one of the cutting edges of *The Technological Herbarium* is that you find very reasonably argued presentations of topics that at that time were not yet as popular as they are now. To make a long story short, I think it was significant how she presented the complex issues of the many technologies of the living, from ALife to the ones based on the manipulation of life. I suggest to readers of this book that they pay close attention to the notes, to the artists, the websites, the authors quoted by Gatti. Very interesting!

Regarding the technologies of the living and their relation to art practices, she happened to study with Pier Luigi Capucci, one of the major experts in this field. I tried to contribute to this perspective while Gianna Maria was preparing her thesis. I have had the pleasure to cooperate with Capucci on several occasions, and to contribute to the website he founded noemalab.org.

Gatti's *Herbarium* was conceived when, in northern Italy, and particularly in Torino, the almost ten years long cycle of Ars Technica and Ars Lab came to an end. With both Capucci and me, she had the opportunity to use materials and have contacts that from Capucci's Noemalab (just to mention one of his many activities) to the Ars Lab context were at the disposal of a skilled researcher. In fact they still are and Gianna Maria Gatti has edited the Ars Technica and Ars Lab file. Anyone can have it by mail, on request.

I would not like to answer embodying Capucci's spirit, so I have limited my answer to myself!

ANS: One of the subjects that the book has led me to think about is the question, would it be possible to really integrate art and science, on a very concrete level, especially in the field of genomics? How could the procedures of the scientific laboratory actually benefit from allow entry to genomic art into their researches? Art would actually become part of science, on the level of real experiments. Do you have any thoughts about this?

FT: On the integration of art(s) and science(s), we have had an endless debate for a century - even centuries! To summarize, what appeals to me the most are the continuous changes in interdisciplinary intuitions, programs, and cross-productions of something. In the book we are talking about, we have either practical cases of a promiscuous interdisciplinary approach to artworks and art codes, or a sort of underground path that reflects the scientific mainstreams of our era. Moreover, I see it as meshes of almost subterranean runs through a complex system of relationships, more related to a bio-cultural ecosystem in perpetual mutation than to the classic and historical debate about the integration of art and the sciences.

I think that Gatti followed this pattern of work in the writing of her book. In this respect, she even goes beyond the brilliant and faultless examples that she has chosen.

I do not know if everything that is related to the Sciences of Life and their techniques will bring about a better integration between art and the sciences than what we have had before. I am convinced that the terms and conditions of this encounter and its cross-productions are different from before. It is an irreversible change, and one can feel it in this book.

Take the example of Artificial Life. Biotechnology has changed even the meaning of the original concept. Now technologies more than simulate life. Life processes act directly on life, cells, tissues, etc. But this is another story which continues! We should enter into the bioarts field, even if I know that many artists and authors, Hauser for example, do not like this vague and indefinite term. We have other, more defined terms, from biotech art, transgenic art, biomedia, etc. In the *Herbarium*, you may find a first passage towards this complex galaxy!

Now that our conversation is approaching the end, I want to add that, in Gianna Maria Gatti's book appears - if I can say that - a positive and almost pedantic attention paid towards many artists' work that takes in account visions, passions, main principles and issues which constitute, to mention a famous modern jazz standard, 'Body and Soul'. This emanates from new media art and so on...

Illusions are also there, I know, and that may be the subject matter of another future conversation between the two of us. You are very prepared on this subject. Speaking in less Baudrillardian terms on this topic than you do (you know Baudrillard much better than I do, I hope that I have understood some of your papers correctly), let me invoke on the question of illusions a concept of the philosopher Jeanne Hersch. This may also provide a kind of answer to your question on art and sciences. Hersch published, as you know, a major work on the Philosophical Illusion (in 1936, as the barbaric subhuman time of World War II and the Shoah was drawing near). Hersch states that an illusion means to believe that philosophical thinking may later become a scientific truth, but that, on the other hand, philosophical thinking cannot leave out of consideration the current scientific truths. I am paraphrasing, perhaps not too correctly, an article on Jeanne Hersch written by Roberta De Monticelli, the professor who now holds the chair of Modern and Contemporary Philosophy at the University of Geneva that was previously held by Hersch. The challenge is to perpetually search for equilibrium between these two poles of the illusion... But I stop here now. I do not want at present to embark on an adventure on your field of "The Illusion Beyond Art."

ANS: *L'illusion philosophique* by Jeanne Hersch. Another great book by a Swiss thinker which has never appeared in English translation, so far as I know. On the subject of the illusion, I also like Clément Rosset's small book, *Le réel et son double*. Rosset also says that the fundamental structure of the illusion is paradoxical, the double that is at the same time oneself and the Other.

I am grateful to you, Franco, for this great conversation. I look forward to visiting you soon in Torino. I was there once before, as a young hippie about 1980. I felt the spirit of Antonio Gramsci during that stay, and I have not forgotten Gramsci's plea for the creation of a revolutionary culture.

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