Interview with Mihai Nadin: "Even those who avoid any contact with technology cannot live without it"
Titus Vijeu, Ziarul de Duminica, 5 February 2016

The presence of Mihai Nadin, of Romanian origin, now professor in the USA, was occasioned by the launching of his book, *The Civilization of Illiteracy* (which is of extreme importance for understanding today's technological society), translated into Romanian and published by Spandugino. Born on 2 February 1938 in Brasov, the author proved himself, already in the 1970s, as a writer and philosopher, establishing the new field of informational aesthetics. After moving to the USA in 1980, Mihai Nadin established himself in several domains: computer science, aesthetics, semiotics, and human-computer interaction, offering courses at prestigious universities (such as Stanford, UC-Berkeley, the University of Texas) and responding to the invitations of several academic institutions in Europe (the universities of Wuppertal, Bremen, and Dresden).

Considered by Solomon Marcus, member of the Romanian Academy, as "a pioneer in the domain known as computational design (…), in connection to anticipatory systems," Professor Mihai Nadin as kind enough to respond to questions posed by a former colleague, Titus Vijeu, professor at the school of audio-visual communication and the I.L. Caragiale National University of Theater Art and Cinematography in Bucharest.

Interview:

TV: You were among the first (if not somehow the first) who introduced informational aesthetics in Romania in the early 1970s, popularizing the theses of Felix von Cube and Waltraut Reichert, and also the ideas of Abraham Moles and Georg Klaus, as you set forth your own ideas concerning the "cybernetic theater." At least two books—*Return to Zero* (Junimea Publishers, 1972) and *Nessus' Shirt* (Romanian Books, 1973) place you in the avant-garde regarding questions in which science and the arts are congruent. This profound knowledge of two major sphere of the human soul allowed you to take on the "untouchable" Roland Barthes, because "Cybernetics does not mean informational

polyphony (…) or the simultaneity of emissions from the constitutive elements;" tht is, scenography, lighting, wardrobe, dialog, music, gesture. Since then, especially after you left Romania in 1978, you expanded cybernetic modeling to social analysis. Is that right?

MN: The cybernetic model of my intellectual youth generalizes the metaphor of steering. If I had been smarter, I would have noticed that feedback is important, but it is an incomplete description of what happens in every act of navigation: navigation in a turbulent ocean, navigation in flying, navigation in the word of ideas and in the universe of values, etc. Feedback exemplifies he Cartesian understanding of action-reaction. For everything of a physical nature, action–reaction is all that is needed to reach your target.

As I started to explore the world of the living, I realized that cybernetics was incomplete and that, together with feedback, we need to consider feed-forward—in other words, action-reaction together with an active search for alternatives. You can steer through turbulence but not really get through if the turbulence is too intense. Therefore, instead of going head-on into the storm, the living seeks an alternative path. This is the thought of anticipation.

The reference to looking into social phenomena refers to the way I was able to transcend the cybernetic model in favor of an anticipatory model. Here I can make reference to "Signs of the Energy Crisis" (1981), a whole issue of the journal *Kodikas/Code* dedicated to the semiotics of the energy crisis. [See: The energy crisis: a topic for semiotics? (Introduction); and Sign and value in the energy crisis, in *Signs of the Energy Crisis* (Kodikas/Code 3:3). Tübingen: G. Narr Verlag, 1981]. You could easily apply what I published then to today's discussions on energy and the social implications. I was able to transcend the linguistic model of cybernetics in favor of an anticipatory model. The refugee crisis is another example in which anticipation can play an important role. But the governments—communist or capitalist—prefer the deterministic model. In my blog (www.nadin.ws/blog), you can read what no commentator on the crisis has dared to state: Germany won the Third World War without firing a shot. She dominates Europe to the extent that her demographic crisis—they do not produce enough Germans to pay for future pensions—turned out to be the test of the European Union. Action-reaction without any anticipation.

TV: *The Civilization of Illiteracy* (Dresden University Press, 1997) made its debut with the "blessing" of Umberto Eco, who pointed out that this is not a book that laments the "decline of literacy." But I recalled that about a half century ago, Eric Havelock of Yale University succeeded in explaining the great enigma represented by Plato's desire to expel all poets from the state. Twenty-three centuries later, humankind has not stopped wondering about Plato's vehemence and even in the middle of the 2oth century, Havelock established that at that time in history, Greece introduced the first educational system based on writing, and that the poets, the bearers of the oral tradition, proved to be living and real impediments on the path to literacy. Are we going through a comparable situation?

MN: In his Preface to *Plato*, Eric Havelock discusses the false antimony between rational and poetic thought. My claim is that they cannot be separated. The easiest way to prove my point is to consider rhyme, rhythm, and meter, which are all expressions of a *ratio*. Song is a rational expression: it aids in synchronization (of sentiment). *Poesis* means self-constitution: we are what we do, as scientists or as artists, as soldiers, as anything. The poetry in scientific thought is the expression of *self-constitution*. Today we experience not a conflict between orality and writing, but rather the realization that new forms of expression undermine both the science and poetry of the past. The Boston Symphony Orchestra gives out iPads to the young audience so that it combines the act of listening to music with viewing the score. It is their hope—an illusion—that they can thus save classical music.

What we call the syntax of poetry (or of music, even of choreography) can easily be imitated by poetry-writing software programs, which even look and sound like poetry (or music). I myself wrote such programs, so I know how the computer produces new novels, which are not worse that those written by untalented authors who are literary stars. But poetry is not a syntactic expression; it corresponds to the formulation of new questions. It entails human experience and triggers interaction. No machine was ever able to formulate a question. They can give answers. I was always afraid—reflexively afraid—of those who can answer any and every question. And when I find myself in this

position, I tell myself that it is time to stop. At one time I declared that I am my questions, the number of which continues to increase day by day.

TV: The title, *Civilization of Illiteracy*, seems an oxymoron, a paradox, in any case, especially at this time when information circulates without limit, from one end of the Earth to another. It seems we live in a time when gnoseology meets ontology to substantial recognition. Still, how "illiterate" can we be, or become, when our relation with the computer is so close? It seems we are cheating on our legitimate, "God-given" partner: Nature.

MN: Not to understand that there is a fundamental difference between the living (sometimes called the *organic*) and the non-living (*inorganic*, the realm of physics and chemistry) is the major reason for the growing imbalance between what we can do to nature and how ineffective we are in dealing with our own nature. Newton wrote the word "nature" with a capital N, and lumped together under this generic name everything that exists. His genius did not prevent him from committing an elementary logical error: if everything is Nature, then nothing is nature. Today, some scientists affirm that everything is computation, that the reality we live is the result of a continuous computation

It would be almost nice if the computer were only our "concubine." But we are not in this enviable state. Actually, we are all supposed *to be* a computer, that is, a machine. This is a fundamental error that has driven us since Descartes. Our only chance to get out of this vicious predicament is to understand that there is nature—that is, the living—having purpose and able to affect its own dynamics; and there is the rest of the world—physical reality—that we are trying to understand and utilize. Our understanding of our own condition might benefit from some mathematical description, but it is not reducible to it. The living is the domain of meaning.

TV: In a recent interview (*Brand Eins*, 12, 2015), you stated that "digital ontology makes it possible that interaction with machines develop according to the laws of human nature," even if you yourself cannot concretely envision how this phenomenon will

develop, and especially that "the new world of distributed-integrated information processing will be much more different from what it has been until now." So we are living a time of complete change, even of a complete break, if we keep in mind your prediction of over a decade ago (as written in the first *Brand Eins* interview): "The age of 'ubiquitous computing' will come about around the year 2016." So even if the Mayan prediction of the end of the world in 2012 did not prove true, we must be prepared to enter a new age of technological civilization.

MN: *Brand Eins*, which has become the most important business magazine in Germany, is actually a cultural publication. This is surprising for those who have not yet understood that even business people need a compass. In this world of disruptions, in which each new product actually destroys the former product, the hardest thing to understand is the direction of change. In my opinion, the validity of a theory is based on its power of precision. From this perspective, I am relatively satisfied. The interview in *Brand Eins* States: "You were right in respect to the future of the computer. What can we expect after that?" From the perspective of my science, we have reached the limit of the attempt to transform the human being into a machine. A complementary process is necessary. How can we make machines the better reflect the characteristics of the living? Ontology engineers must learn that the pragmatics of human activity is important, not formal rules.

TV: You warn that "We cannot see the future if we look into the 'rear-view mirror' of history." I recall the last lines of your book about Lawrence Olivier (1968), made by "shyly, a poet" stating that "the adventure lived in Shakespeare's universe continues." What could be sadder than an adventure abandoned?" I come to think that the Big Data system forces us in the direction of frenzy with technology.

Your experience in the USA and Europe brought you in contact with scientists convinced of the weaknesses of informational system, as well as (I suppose) with people in the humanities and even with everyday individuals who are unaware of cybernetics. What would you say to one of these ordinary persons in Romania, a country coming late to digital technology, but in which use of Google and Facebook grows at an extraordinary rate?

MN: Even those who avoid any contact with technology cannot live without it. Nothing on Earth as remained unaffected by the digital dimension of human activity. There are no religious, emotional, political, or other options to this. Watzlavick (he was mainly a psychologist) once wrote "You cannot NOT communicate." This famous formula is as devoid of spirit as McLuhan's "The medium is the message." I hold a radical position: One cannot not INTERACT. We cannot avoid interaction. Those who do not use computers (out of some principle) do not know what a cell phone is, or who do not use a GPS (global positioning system) for navigating their car to a destination live the illusion of digital virginity. They do not realize that the weather report—in the newspaper or on radio—is based on data supplied through computers. Like it or not, technology is omnipresent. The interdependence we experience in our time is such that no matter what our intentions, each decision and gesture will influence someone else in the world. Technology changed the human species, and it will continue to change everything that exists. *Caveat*: If we refuse to become totally dependent on it, we have a future.

TV: You taught and lectured at several prestigious universities in the Europe and the USA, among them UC-Berkeley, where in the 1960s to the 1980s Czeslaw Milosz from Poland, and a Nobel laureate taught. You lived your first 40 years in communist East Europe. What do you think of post-communist Europe?

MN: The world after the fall of communism is desperate to make up for the years lost in an absurd moral condition. When I was asked why I don't visit Romania, I answered that I had been convicted in absentia for leaving Romania and I did not want to risk my life or that of my family. I left behind friends, good people, talented, industrious, honest. How would it look for them to see how much better off I was? I was free to travel, free to read any book, free to say whatever without fear of being arrested. Today everyone wants to compensate for the years of no freedom, and I cannot blame them. But I'd be lying if I say that something is being lost in the rush towards consumption. Ideals, the right to chose what is good, what is of value. It's a shame that materialism takes over and that freedom is sacrificed for nothing of real value. I met with colleagues in Lenindgrad (of the Soviet times) who had studied the brain from an original perspective. The name

Bechtereva should mean something to those familiar with the old Leningrad area. Their ideas were suppressed. Today the Bechtereva Institute in St. Petersburg provides service: measuring everything without knowing whether it makes sense to measure. They need equipment, so they get the machines that do exactly what Bechtereva said made no sense. I would not allow my students to carry on such useless research. Of course, there are positive examples, too. It was a revelation to see how Estonia is flourishing both materially and spiritually.

But don't give my words too much weight. These are impressions made during short visits.

TV: In February, you turned 78. On such occasions, the usual question is "What are your plans for the future?

MN: Plans for the future. Probably many more than I should have at this age. Like everyone, I have an expiration date. I have four books "cooking" in my mind, but will I have time to write them? I have to support my doctoral students. Each thesis means serious work; I don't accept mediocre projects. There are many books I want to read, many concerts and performances I would like to attend, and many conversations I want to have with those dear to me and those for whom I have much respect.

TV: Now Romanians can read the translation of Civilization of Illiteracy, thanks to Spandugino Publishers. Solomon Marcus stated that you are a pioneer in the filed known as "computational design," a scientist who researched control systems, but who decades ago "committed himself to exploring the civilization of illiteracy, which many of us know nothing about. I looked over your publications, when you, as a young scholar, started writing to see if there is some thread leading from the engineer and computer scientist (graduating with honors) to the philosopher and scientist who "founded a new anthropocentrism" [Marcus].

MN: Caragilae once observe that revolutions are not declared and do not take place with anyone's approval. They occur when change becomes necessary. The transition from the

dogma of Cartesian determinism to the freedom of a vision that no longer reduces the living world to the laws of physics and chemistry will not take place only because Mihai Nadin is convinced that this change is necessary. But when it does take place—and it will—maybe some of his arguments (some published in books and scientific journals, some during lectures and conversations) will be taken up by others. Life goes on, and it is incredibly interesting.

6. Lumea dupa caderea comunismului incearca cu disperare sa recupereze anii pierduti intr-o conditie morala absurd. Can am fost intreabt "Dece nu vizitezi Romania? M-am ascuns in spatele unui fapt relvat in felul sau: Fusesem condamnat in comtumacie, si n-aveam dorinta sa primejduiesc viata familei basca viata mea.Dar motivul real a fost altul. Lasasem in urma prieteni, oameni de bine, talentati, silitori, onesti. Cm m-as fi putut uita in ochii lor fara sa ma jenez de faptul ca mi-e imi merge mult mai bine decat lor. Avema libertatea de a calatori, de a cerceta ceea ce ma interesa (si nu ceea ce mi-ar fi dictat regimul), putem citi ceea doream, puteam discuta fara nici un fel de retinere . Astazi fiecare se straduieste sa compeneseze pentru anii pierduti. N-am sa-mi permit impertinenta de a-i judeca pe cei care vor mai mult, vor mai bine, vor mai usor…Dar as minti daca nu as spune ca imi pare rau ca ceva important se pierde in pasiunea noua a consumului. Dimensiunea ideala a libertatii, dreptul de a decide si a alege intre bine si mai putin bine, nevoia de a pastra ceea ce ne defineste ca fapturi inzestrate cu sentimentul valorii—lista e incomplete—sunt greu de identificat in aceasta lume care se numeste libera, dar nu in fapt nu este. E pacat ca materialismul invinge si ca libertatea dobandita e sacrificata pentru aproape nimic semnificativ. M-am intalnit cu colegi care in vechiul Leningrad (al comunismului Sovietic) studiau creierul dintr-o perspectiva originala )voi aminti numele Bechtereva, pentru cei care sunt familiari cu domeniul). Ideile lor din perioada lipsei de libertate erau cutezatoare. Astazi, la Institutul din St. Petersburg, ei presteaza servicii—masoara pentru altii, fara a se intreba daca totul are sens. Au nevoie de echipament (oare au nevoie?) si ca urmare platesc pentru el facand

exact ceea ce au sustinut ca nu are sens. Eu nu mi-as permite sa le cer nici macar studnetilor mei sa faca acest tip lucru. Fireste, exista si exemple bune. In Estonia am avut revelatia unei re-inoiri atat pe plan spiritual cat sip e plan material.

Dar va rog din suflet nu da-ti cuvingelor mele prea multa insemnatate. Acestea sunt observatii superficiale, ale unui oaspete care in general e dificil pentru ca are ideile sale si nu vrea sa lase politetea sa-i defineasca perceptiile.

7. Planuri de viitor? Probabil prea multe, mai multe decat as fi indreptatit sa am in acest moment al vietii. Ca toata lumea, am si eu data mea de expirare. Stiu ca am patru carti "coapte" in mintea mea…Dar am oare anii pentru a le "transcrie"? Stiu ca datorez doctoranzilor mei tot sprijinul (fiecare teza a grea, nu incep cu nimeni proiecte banale, n-am vreme pentru mediocritate).Stiu ca mai am multe carti de citit, multe concerte la care vreau sa fiu de fata, mult spectacole, si multe converatii cu cei care imi sunt dragi, si cu cei pe care ii respect (daca au vreme pentru mine).

8. Caragiale observase candva ca revolutiiile nu se declara (si nu au loc cu aprobare de la Primarie)…Ele de declanseaza cand o schimbare devine necesara. Trecerea de la dogmele determinismului cartezian la libertatile unei viziuni care nu mai reduce lumea la legiile fizicii si ale chimiei, nu va avea loc numai pentru ca Mihai Nadin e convins de necesitatea acestei treceri. Dar cand va avea loc—pentru ca va avea loc!—poate ca unele dintre argumentele sale (uneori publicate in articole stiintifice sau carti, alte ori in proza, sau in alte forme de expresie) vor fi preluate de altii….Viata continua si este nemaipomenit de interesanta.