

Between the probable and the impossible.

The real is surrounded by the possible like an island by the ocean. We live on the beaches of the real. Our feet try to maintain their foot-hold in the sands of the real, while with our mouths we suck in the possible, in order to feed on it and to digest it. Man is an animal which leads an amphibian existence. But this is changing. We are about to mutate, to become sea birds which spread their wings, leave the beach, and plunge into the waves of the impossible, in order to fish probabilities out there. To be a realist is to plunge into the impossible at this point of human history: the true adventure is just beginning.

Past adventures, (like the recent space travels, or Renaissance discoveries, or classical advances beyond the pillars of Hercules, or even like that adventure undertaken by our ancestors when they left the forest and advanced into the African savannah) are nothing but pale blue prints, if compared to the horizons which now open up for us. Wave after wave of impossibilities are approaching our beaches, the one more adventurous than the precedent one, and there is no end to this sea quake. The waves of nuclear physics and of astronomy have already reached our island, and what had been impossible a few years ago, (like the splitting of atoms or landings on planets), has become commonplace and banal. Three gigantic waves, (of genetics, of neurophysiology and of electro-magnetisation), are fast approaching; they roll in from the impossible toward the probable, and their thundering may be heard all over. Behind them, on the horizon, new and as yet shapeless waves are rising: shall we call them psychic? In the face of this upheaval we can no longer think, or act, or even live the way our fathers did: new categories of thought, (a new science), of action, (new politics), of living, (a new aesthetics), are required. This is the challenge.

This paper will try to consider how electro-magnetisation, by rendering probable what is impossible, imposes new categories of thought, of action and of living upon us. But before doing so, it cannot but furtively glance at the two neighbouring waves of incoming adventures: at genetics and at neurophysiology.

The processes which give rise to new species are changing their structure, and the pace of the development of life has accelerated beyond imagination. New virus and new bacteria are being produced according to program, no longer according to chance. Clones and chimaeras of more complex organisms are being projected. As yet non-existent sense and motor organs are being prepared and simulated. An entire fan for the development of new species of plants, of animals, (and of humans?), has opened. The myth of Pygmalion and of the Golem, (the myth of Man the Creator of Life), is about to become real. We are approaching a deliberate and programmed biosphere here on Earth, (and possibly elsewhere). Biology is about to change from a natural science into a technique, and biological life to change from a natural phenomenon onto a cultural product. Our imagination refuses to accompany this mutation from the impossible into the probable: it is too astounding.

What goes on within the synapses of the brain, (perceptions, imaginations, feelings, sensations, desires, thoughts, decisions), may be described as quantic jumps and therefore calculated. We are as yet very far from having done so. Still: our attitude toward the mind is being inverted like a glove by this possibility which is becoming ever more probable. We can now simulate the mental processes in artificial

intelligences, (be they of silicon or of nerve fibres). We are beginning to develop methods which permit us to interfere within the brain processes from outside. And brain transplants, (for instance from the bodies of old people to the bodies of newly born babies), are about to leave the domain of the impossible. Those perspectives are breath-taking; they transfer "transcendental" problems, (like the ones concerning the spirit, the soul, and immortality), from the realm of faith into the domain of scientific and technical manipulation.

"Immaterial" culture, (the production, transmission and storage of information within the electro-magnetic field), means gadgets like radios, TV, cables, satellites, floppy discs, holograms and so forth. It means synchronisation and reversibility of all available informations. Now this, in itself, is utterly fantastic. Synchronisation, (world-wide simultaneous events), implies the end of geography: concepts like "town and country", "nation and state", or "regional and national culture" become devoid of meaning. And reversibility implies the end of the "sender-receiver" relation; concepts like "central government", "political power and decision", or "elective and representative democracy" become devoid of meaning. Still; although all this is utterly fantastic, it does not yet grasp the nucleus of the adventure of electro-magnetisation.

"Culture" is a tool for the production, transmission and storage of information, and "information" is an improbable situation, (the less a situation is probable, the more it is informative). Of course; culture is not the only tool which produces informations. Nature can do so, (galaxies, living organisms and the human brain are such naturally produced informations). But there is a difference between natural and cultural informations; the natural ones come about throu accident, as a deviation from the natural tendency towards ever greater probability, toward dis-information, while cultural informations come about throu deliberation. The human brain is the place where accidental production turns into deliberate production; it is itself an accidental information, and it produces deliberate informations. Within the brain nature changes into culture.

"Material" culture stores the informations it produces within material objects like stones, canvas covered with oil, bricks, paper or bronze. Those are bad memories; they will crumble, (towns will fall into ruin, and entire civilisations have been forgotten). "Immaterial" culture stores the informations it produces within the electromagnetic field, (tapes, records, discs, computer memories). The electromagnetic field is even less permanent than are material bodies, but the informations stored within it may be multiplied at will without thereby being distorted. Thus the electro-magnetic field is "aere perennius", (more eternal than bronze is). The consequences of this are staggering;

To store informations within material, inert, perfidious objects is a gesture called "work". In the past, people had to work and to produce works, if they wanted to preserve informations. This will no longer be true within the "immaterial" culture. Of course; work will still be done in the future, because the human body needs informed objects like bread, or houses. But it will no longer be done by men, but by automated apparatus. People will restrict themselves to prescribing work, to programming apparatus. To work will become a gesture unworthy of men, and human dignity will articulate itself in the production of immaterial information, (of "pure

creation"). People will be committed, no longer to changing the objective work (apparatus do this better), but to creating improbable situations. Since "work" was held to be the source of all values in the past, this implies a re-evaluation of all traditional values.

People will come to despise objects, and to value pure information. The consequence of this will be a totally new experience of freedom. He who fights objects, in order to inform them, experiences objective resistance; freedom is to overcome objective determination. He who produces "pure information", he who calculates and computes point-like elements, experiences the haphazard, accidental distribution of particles; freedom is to overcome absurd chaos. The dialectic of freedom is no longer experienced as a contradiction between will and necessity, but between will and chance. Now this experience will not only change political thinking and action, it will change the entire human existence. Man will no longer be subject to objects, (a subject of the objective world), but he will become immersed within reversible intersubjective relations, (a knot within the information producing network). He will no longer be a discourse against the objective world, but a dialogue with all the others. He will no longer live in order to face the world, but in order to alter the others, and be altered by them. "To exist" will come to mean: to be together with all the others.

The Greek word for "to experience" is "aisthetai"; what is involved here is an aesthetic revolution. "Immaterial" informations, (like digitalized images on computer terminals, or like holograms), are articulations of an entirely new aesthetic experience, an entirely new form of "imagination". They are the result of previous calculations and computations of clear and distinct concepts. Aesthetic, (concrete) experience will no longer precede, but follow disciplined, scientific reason. The new "art" thus produced no longer demands posterior criticism, but is based on previous criticism. It is the critic, the scientist, who has become the artist. Science will become art, and the arts will become scientific method. Man will experience himself and the others around him within the aesthetic mode of science. Reason will show that it possesses a heart the heart knows nothing about, and a post-conceptual aesthetic, concrete experience will develop. Consciousness, (and therefore life), will have changed from bottom to top, and from top to bottom. A trumpet shall sound, and we shall be changed thanks to electro-magnetization of available informations.

When we plunge thus into the realm between the probable and the impossible, we become victims of a curious dizziness which has us oscillate between hope and terror. But it depends on us, (those of us who do this plunging), whether the utopia which unfolds will be a negative one, or one where "homo sapiens" will finally merit that label.