ECOLOGY

This word appeared in the French language for the first time around 1874, following the German usage proposed by Haeckel in 1866; however it seems that the American philosopher Thoreau, had already invented the word in 1852. Since then ecology has acquired two meanings:

1. It refers to a scientific discipline, dedicated to the study of more or less numerous sets of living beings interacting with their environment. The discipline of ecology started with a comprehensive study of the Mont Ventoux, in France, and about the same time with the development of limnology or the science of lakes, with studies in the vicinity of Madison, Wisconsin. In studying the interlinked totality of living beings and inert objects, ecology relies on the combination of both traditional and recent disciplines, mathematics (differential equations), thermodynamics, biochemistry etc.

2. Ecology also refers to the controversial ideological and political doctrine varying from author to author or group to group that aims at the protection of the environment through diverse means.

History and Philosophy of Law.

Published in 1990, and written in the previous decade, The Natural Contract does not use the term ecology once. Why not? Because it deals with the philosophy and the history of Law, and in particular with the question of who has the right to become a legal subject. For centuries, only adult males who belonged to an upper social class could introduce and defend a legal action: Greek and Roman citizens, nobles, bourgeois.
… excluding slaves, foreigners, women and children, the poor and destitute.. Little by little, some form of emancipation enabled the latter to become legal subjects, that is “of age” in the eyes of the law and other public institutions. I am ashamed to say that I was taught in my youth about the establishment of universal suffrage while women only got the right to vote in my country in 1944; they even needed their husband’s signed permission to open a bank account.

This entire history ends at least theoretically, with the famous Declaration of the Rights of Man and the Citizen, decreed during the French Revolution, and at the end of the last war, with a similar but universal Declaration published by UNESCO. Thus, everyone is a legal subject today.

My book argues that this Declaration is not yet universal as long as it does not determine that all living beings and all inert objects, in short, all of Nature have in turn become legal subjects.

Who signs the contract?

The main objection to my book consists in asking the author: who will sign the Contract since Nature does not have a hand with which to write nor an understanding capable of any such intention.

I am neither so dumb nor so animistic to think that Nature is a person. I could also answer that the same objection was leveled at Rousseau’s social contract; no one has ever signed this contract in a ceremony the date and circumstances of which could be documented. The General Will has as few hands as nature.

Therefore these Contracts must be conceived as preconditions. If we live together in such and such a way, everything occurs as if we had signed the Social Contract. If today we protect certain endangered species, it is because we acknowledge their right to exist, at least virtually. During the British colonial period, the hunters in Bengal did not recognize the rights of tigers, even to the point of extinction. We are beginning to conceive the possibility of lawsuits that, for example, oppose polluters and this park or forest or that mangrove swamp. Such lawsuits are only possible because of the tacit acceptance that these “things” are legal subjects.

Our present behaviors, even our sensibility now take into consideration the fragility of things, and so presuppose that Nature is slowly becoming a legal subject.
Despite differences between epochs, traditional Western philosophy attempts to discover a place from which one can simultaneously observe scientific reason and legal reason, the laws of the physical world and the political laws of human collectivities, the rules of Nature and the rules of Contracts. This is why the terms that designate those principles are the same in the major languages.

This is true of Plato and Aristotle, Lucretius and the Stoics; it applies to Saint Thomas Aquinas and the Middle Ages, Spinoza and Hobbes, to the classical age, and closer to us, Kant and Hegel. In search of such a place, The Natural Contract deals with the philosophy of knowledge and action in relation to problems posed by contemporary science and technology.

**THE NEW WORLD-OBJECT**

*Heat and the world-objects*

As soon as human technology started using heat, vaporous mixtures expanded everywhere in all directions and at random; recent core sampling of glacial inlandsis have been able to date the beginning of the bronze age almost to the year, thanks to traces of the first effluents emitted by archaic ovens in the Middle East which were dispersed everywhere and carried by snowfall to those high latitudes. Who would have thought that globalization started as early as our prehistory?

The industrial revolution generalized and propagated thermal techniques which accelerated the *rise of the local towards the global*, the causes or consequences of which philosophy has not yet studied. Since I frequently described this rise in previous books, The Natural Contract begins by simply mentioning it. Our know-how has been dedicated in recent times to the production of world-objects, a concept that I defined twenty-five years ago in Thanatocracy (Hermes III, p. 101), taking as examples ballistic missiles, fixed satellites and nuclear waste. By world-objects I mean tools with a dimension that is commensurable with one of the dimensions of the world. A satellite for speed, an atomic bomb for energy, the Internet for space, and nuclear waste for time…these are four examples of world-objects.

*What is an object?*

What then is an object? In the literal sense it is: “that which has been thrown or which one throws in front.” Are world-objects *lying in front of us*? The global dimension that characterizes them eliminates the distance between us and them which in the past defined objects. We now live in those world-objects as we live in the world.
Traditional technologies, tools and machines form units with a local range of action in space and time: the sledgehammer drives in the stake, the plow cuts the furrow, in sum, they define an environment where few humans worked, for example a family living on a farm. Such a division of the world into localities allows for a philosophy of mastery and possession, because we can define what we dominate, how we dominate it and who is meant by this we. As the range of action of the objects increased, so did the number of humans that produced or used them; but also vice-versa in a kind of feedback. Smelting furnaces and airline companies do not mobilize the same groups; the concentration and size of subjects condition those of objects. However, the reverse also takes place.

Little by little globalization forms a new universe based on thermal techniques and developed further by the quantitative increase of world-objects. We see these now as technical, physical, and we will soon see them as human and legal as well. Can we still call these things objects, and the people who use them subjects? Are our communication networks objects?

**Dependency and possession**

It is perfectly possible to master a given place in a short period of time and to become its possessor; in the final analysis property is the occupation of a niche and thus the demarcation of a place. But we do not know the ins and outs of global mastery of the universe. Because our philosophies are dedicated to difference and distinction, they can only achieve accurate definitions at the local level. As a result they handle categories of totality with difficulty. The Cartesian adage concerning the possession of nature does not define the conditions of mastery over such a vast “object.”

On the other hand, that same recommendation of mastery is inscribed in the slow historical displacement of the old stoic division between things that depend on us and things that do not. Again, what “things”? In a second Cartesian act, those “things” that at first did not depend on us suddenly do now, and increasingly so; but, in the third act, we ourselves suddenly depend, and increasingly so, on things that depend on actions that we undertake. Our survival depends on a world that we create with technologies whose elements depend on our decisions.

To the Stoic division, and the Cartesian mastery now succeeds a spiral where mastery and dependency interact and retroact and where obsolete, solitary subjects, are mingled with outdated objects. Thirty years ago already, I wrote that today mastery of the world must be replaced by the mastery of mastery.
The world or nature: homo sive natura

We do not know what the world is like today; we are only beginning to know it and this knowledge differs from our knowledge of a circumscribed object. We are just beginning to act on the world and this practice differs from our action on circumscribed objects.

Therefore philosophy’s task is to reexamine ancient concepts such as the subject, whether individual or collective, the object, knowledge and action. Those concepts developed over millennia, at least in the West, under the prior condition of local divisions which defined a gap between subject and object in which action and knowledge operated. The measure of that gap conditioned them. Local division, distance, measure… this whole production of theories and practices is falling apart today as we enter a broader scene. Older categories of totality such as being-in-the-world become concerns of objective knowledge, relevant to the problem of politics and technical action. Thus they go from metaphysics to physics, from speculation to action, from ontology to responsibility, from ethics to politics.

A certain nature, not in the common meaning of the term, but in its purely etymological sense, is being born which is new for our globalized knowledge and acts.

This nature returns as a condition of knowledge, action and even survival, now that the new subjects are encompassed by it as soon as they act upon it.

Homo sive natura.

OBJECTIVITY: THE WHOLE EARTH

1. – Perception: thanks to photographs taken by the astronauts, we see the whole Earth. This view is different from ancient visual perceptions that presupposed the Earth as an unseen background. Being-in-the-world never saw the world before.

2. – Transmissions, information and knowledge: through the Web and e-mail we communicate with the entire Earth. The consequences for knowledge and the human community today transform our living conditions. Being-in-the-world never before heard the world.

3. Practices: through our techniques and their effluents, we act on the entire Earth, the climate and global warming. As soon as we act on it, it changes and we change and we no longer live in the same way. All we can do is bet on the consequences of those actions for our survival. Being-in-the-world never acted on the world before.
SUBJECTIVITY: HUMANITY

1. For better and for worse, information and communication, with their intermediaries and powers, traverse the entire Earth and its inhabitants, defining new communities, a global “we.”

2. Today communities of audiences, spectators and contributors emerge, creating a global public opinion, which at first is scientific and technological, and no doubt eventually political and moral.

3. To the whole Earth there corresponds humanity, no longer abstract, sentimental and potential, as in the past and until fairly recently, but present and soon to be fully realized. A certain humanism is reborn, resting on the new Grand Narrative of our paleo-anthropological origins.

COLLECTIVITY: NEW OBJECT-SUBJECT DISTRIBUTION

The subject becomes object: we become the victims of our victories, the passivity of our activities. The global object becomes subject because it reacts to our actions like a partner.

The earlier Rio and the more recent Kyoto meetings on global warming show the progressive formation of that new collective global subject which is situated facing or inside the new natural global object.

The cost of knowledge and action

Classical Western philosophy never calculated the cost of knowledge or action but considered them to be free of charge. However, as soon as work appears, everything is subject to the martial law of price. The yield of work is never one on one; there are always residues and garbage. As long as work remains cold and local, price is calculated in terms of profit and loss. As soon as heat enters work, the productivity of the thermic machine is calculated. When world-objects are in operation, the cost becomes commensurable with a world dimension. Local, negligible waste is succeeded by global pollution of the world.

LEGAL CONDITIONS OF KNOWLEDGE AND ACTION

Things and causes: the archaic and the new Contract.

Let us return to things themselves: for the Western linguist and historian, causes
or cases precede things and the first known subject is the legal subject. The contract precedes knowledge and action.

The French word “cause” designates an objectivity; it is indeed derived from the Latin *causa*, a legal term used to designate what is at stake in a lawsuit, or the lawsuit itself. The thing originally then appears as something about which there is a debate, a suit, the decision of a court, something about which there will be a contract. Knowledge of the thing flows from the establishment of a legal authority that names both the agreement and its object. Similarly, the English *thing* is derived from a term of Germanic law. In our European languages then, the emergence of a thing is always accompanied by a social contract: does it constitute the group or does the group constitute it? We will probably never know which preceded the other. In any case, objectivity appears at the same time as a collective and this appearance takes place under legal conditions.

*Subjects, objects, knowledge*

Similarly, the first known subject is a legal subject. For that reason, *The Natural Contract* deals almost exclusively with the question: who has the right to become a legal subject? Western history shows the progressive increase in legal subjects: slaves at first, then children and women, the recent date of whose inclusion shames the West.

The whole question concerns first and foremost the status of subjects, and then that of objects. Some thought it was crazy to propose a contract that would commit us to an object and through which it would be committed. The same objections were leveled at Rousseau; the Social Contract was never signed in known or knowable history by any human or collectivity because in his work it designates the sine qua non or transcendental condition for the formation of societies. Bacon could have been criticized in the same way: whom does one command, whom does one obey, in his famous adage according to which one can only command Nature by obeying it?

And yet, *as with any change in scale*, globalization progressively and profoundly transforms the respective status of objects and subject, as action and knowledge strive towards the universal: the objective status of the collective subject changes because from formerly active, it becomes the passive, global object of forces and constraints that result from its own actions; the status of the world-object also changes as, from formerly passive, it becomes active, from formerly a given, it becomes our de facto partner. Thus we can no longer describe the scene of knowledge and action with the medieval couple of subject-object; the terms are changing as well as their relation.

Concerning this relation, I know of no knowledge that does not start out from legal conditions whose impact in the history of science increases at least as fast as the
conditions of globalization. Every body of knowledge requires an agreement or a consensus that must be established by an authority in fact or by right. In education we must present ourselves to examiners for graduation, competitions or publications. Before saying anything, whether it be true, false or probable, even before saying that this or that is or is not an object of science, such and such authority deliberates and decides in an adversarial process.

Legal subjects proclaim the rights of objects.

*Case History*

Those legal conditions have not always prevented fatal outcomes. Everyone cites Galileo’s trial as the exceptional action that founded modern science in the West. Not so! I do not know of any Greek scholar concerned with objective science, astronomy, physics or medicine, who was not on some occasion called before the court on the charge of neglecting the political affairs of his country. They all risked or lost their life for having interrogated the stars or the plants. The Greek history of important trials testifies abundantly to the fact that the thing emerges with the case. Fairly rare in the Christian area and era, a trial like Galileo’s seems rather a remnant of that distant history.

As I noted at the beginning, the fact that the great western philosophies (from Plato and Aristotle to Hegel) attempt to discover a common place from which to think both science and law at the same time, seems to me a significant trace of that origin. Why do we designate both types of law with the same term, why do we say or not say nature for the world and for humans?

Today we must conceive a new object that goes far beyond the status of local objects, because if we treat the world as an object we are condemned in turn to become the objects of that object. To think this new situation, *we need to return to the original legal gesture*. This newly emerging object enters thought with a new Contract that simultaneously establishes the new global object and the new global group that thinks it, acts on it, and whose debates reveal it, whose actions make it react and the reactions of which condition the very survival of the collectivity that thinks it and acts on it. For more than twenty years, we have been speaking and debating about this, and establishing the basis of what I have called, the *Natural Contract*.

Philosophers for whom neither the world nor science exists have criticized me for dealing with these issues; however that seems to me a very small price to pay compared with the treatment I should have received. Certainly, the fact that the politicians themselves are taking these problems seriously renders such criticisms obsolete. The
legal debate has started, the global collectivity has noted the existence and status of the new object that, for lack of a better word, we continue to call nature, and by conferring about it, our leaders have de facto signed the *Natural Contract*.

The task of philosophy is to anticipate the future.

*Knowledge and exchange: the given*

I promised to speak of the partnership. The relation between the subject of knowledge and its object has never been thought in terms of exchange; instead it was understood that that the active subject took information from the passive object.

The use of the terms “data” and “given” in philosophy thus reveal that the objective or external world gives for free and asks nothing in return. Consequently, the knowledge link becomes parasitical. *The subject takes everything and gives nothing while the object gives everything and receives nothing.* Knowledge is then treated as disinterested in turn. The active or technical relation to the world exploits it and that is all. We did not know we were acting as parasites or predators. What appears normal, usual, commonplace in knowledge or action becomes scandal and abuse as an exchange. But if legal processes lie at the origin of knowledge, some kind of equilibrium should be established in the exchange; hence the necessity of a contract.

All pedagogy consists in making the little human who starts out as a parasite into a symbiotic partner of a fair exchange. *Since he takes, he must give back in return*. In a certain sense, this involves signing a contract of exchange with his environment, as if he started out his human and civil life by learning the non-written law. So every pedagogy presupposes a Contract.

*The law that founds symbiosis*

Consequently, we must collectively educate the scholar, the technician, the politician and the consumer just as we educate our children, individually from the very start of every education. Late in life, we are becoming adults of knowledge and action. The relation to knowledge changes today because of the need for symbiosis with the new object. Exchange is prior to knowledge. A Contract is required to make this exchange equitable. Knowledge starts with the law, whose laws precede any discovery of laws; similarly, technological action starts with the right of exchange. And thus begins the symbiosis of the global world-object and of the global human species-subject.

Any change of scale requires an adjustment of concepts.

*Master and slave: concerning ancient death*
The 20th century built global world-objects but could only think in terms of the old local philosophies. Remember how these philosophies spoke of power: Hegel calls “master” he who gets closest to death and “slave” he who stays far away from it. What death are we talking about? Only the earliest kind, the ancient one. This concern indicates the obsolescence of philosophies that knew nothing of the lesson of Hiroshima, the possible collective death of the human species. What can we say about power, that is to say, politics, when exercising it endangers not only the knight with his amour, or his family, his tribe, his group or nation, but all of humanity, the planet included? Here too, the scale has changed. The question of power concerns not only war and politics, but also technical action and its tools. And as usual, the law follows death.

The law I propose follows the new death. Certain elements of world opinion and politics during the next years of the twenty first century will be linked to these legal questions.

And so I prefer Goya’s painting the description of which opens The Natural Contract to the master-slave dialectic. A pair of enemies are fighting in quicksand. With every blow dealt to the adversary, their legs sink into the sludge, ever deeper as the energy spent in combat increases. Since the dawn of history, we have only seen the belligerents in the grand spectacle of the battle and have only been interested in the question of who will win or lose, who will become the master by subduing or killing the slave?

However, the game is no longer played by two parties, but by three; no longer two subjects, but a pair and the object. Which object? not the local object of a now trivial debate, but the global habitat; no longer the individual case, but the universe of things reacting strongly to the conditions of the struggle. In the past, we signed temporary peace treaties between belligerents; today we must sign contracts of symbiosis between the global Earth and the totality of actors. For, in spite of their hatred and the force of their blows, these actors actually struggle, in agreement and in unison, with their habitat.