

Bruno Latour

Political Ecology

Glossary

ACTOR, ACTANT: Actant is a term from semiotics covering both humans and nonhumans; an actor is any entity that modifies another entity in a trial; of actors it can only be said that they act; their competence is deduced from their performances; the action, in turn, is always recorded in the course of a trial and by an experimental protocol, elementary or not.

ADMINISTRATION: One of the five skills analyzed in this book whose contribution is indispensable to the functions of the new Constitution\*; it makes it possible to document collective experimentation and exerts the third power, that of follow-up, while ensuring respect for due process.

ARTICULATION: That which connects propositions\* with one another; whereas statements\* are true or false, propositions can be said to be well or badly articulated; the connotations of the word (in anatomy, law, rhetoric, linguistics, and speech pathology) cover the range of meanings that I am attempting to bring together, meanings that no longer stress the distinction between the world and what is said about it, but rather the ways in which the world is loaded into discourse (see also Logos\*).

ASSOCIATION: Extends and modifies the meanings of the words "social" and "society\*," words that are always prisoners of the division between the world of objects and that of subjects; instead of making the distinction between subjects and objects, we shall speak of associa-

tions between humans and nonhumans; the term thus includes both the old natural sciences and the old social sciences.

**BICAMERALISM:** Term used in political science to describe systems of representation with two houses (Assembly and Senate, House of Commons and House of Lords); here I am extending the meaning to describe the distribution of powers between nature\* (conceived, therefore, as a representative power) and politics\*. This "bad" bicameralism is succeeded by a "good" bicameralism that distinguishes between two representative powers: the power to take into account\* (the upper house) and the power to put in order\* (the lower house).

**CAVE:** Expression derived from the Platonic myth in *The Republic* and used as a short-cut to designate the bicameralism\* of the old Constitution with its separation between the Heaven of Ideas on the one hand and the prison of the social sphere on the other (see also Old Regime\*).

**CIVILIZATION:** Designates the collective\* that is no longer surrounded by a single nature and other cultures, but that is capable of initiating, in civil fashion, experimentation on the progressive composition of the common world\*.

**COLLECTIVE:** To be distinguished first of all from society\*, a term that refers to a bad distribution of powers; it accumulates the old powers of nature and society in a single enclosure before it is differentiated once again into distinct powers (the power to take into account\*, the power to put in order\*, the power to follow up\*). In spite of its use in the singular, the term refers not to an already-established unit but to a procedure for *collecting* associations of humans and nonhumans.

**COLLECTIVE EXPERIMENTATION:** When it is no longer possible to define a single nature and multiple cultures, the collective has to explore the question of the number of entities to be taken into account and integrated, through a groping process whose protocol is defined by the power to follow up\*. From the word "experimentation" as it is used in the sciences, I borrow the following: it is instrument-based, rare, difficult to reproduce, always contested, and it presents itself as a costly trial whose result has to be decoded.

**COMMON GOOD:** The question of the common good or the good life is usually limited to the moral sphere, leaving aside the question of the common world\* that defines matters of concern; the Good and the True thus remain separate; here we are conflating the two expressions to speak of the good common world or *cosmos*\*.

**COMMON SENSE:** See Good sense\*.

**COMMON WORLD** (also good common world, *cosmos*\*, the best of worlds): The expression designates the provisional result of the progressive *unification* of external realities (for which we reserve the term "pluriverse"\*); the world, in the singular, is, precisely, not what is given, but what has to be obtained through due process.

**CONSTITUTION:** Term borrowed from law and political science, used here in a broader metaphysical sense, since it refers to the division of beings into humans and nonhumans, objects and subjects, and to the type of power and ability to speak, mandate, and will that they receive. Unlike the term "culture," "Constitution" refers to things as well as to persons; unlike the term "structure," it points to the willful, explicit, spelled-out character of this apportionment. To dramatize the contrasts, I set the "old" modern Constitution in opposition to the "new" Constitution of political ecology, the way the Old Regime\*, in French history, is set in opposition to the Republic\* (see also Experimental metaphysics).

**CONSULTATION:** One of the two essential functions of the power to take into account\*: it answers the question about what trials are appropriate to pass judgment on the existence, the importance, and the intention of a proposition\*; it applies, of course, to nonhumans as well as to humans; it does not have the ordinary meaning of an answer to an already-formulated question; instead, it implies participation in the reformulation of the problem through a search for reliable witnesses\*.

**COSMOS, COSMOPOLITICS:** Here we are going back to the Greek meaning—"arrangement," "harmony"—along with the more traditional meaning, "world." The *cosmos* is thus synonymous with the good common world\* that Isabelle Stengers refers to when she uses

the term *cosmopolitics* (not in the multinational sense but in the metaphysical sense of the politics of the cosmos). To designate its antonym we could use the term "cacocosmos."

**DEMOS:** Greek term used here to designate the assembled public, freed of the double pressure exerted over its debates by salvation via Science\* along with the shortcuts of force.

**DIPLOMACY:** Skill that makes it possible to get off a war footing by pursuing the experiment of the collective\* concerning the common world\* by modifying its essential requirements: the diplomat succeeds the anthropologist in the encounter with cultures.

**DUE PROCESS:** The expression, borrowed from law and government, is intended to stress, through contrast, the undue, surreptitious character of the habitual arrangements of the Old Regime. Contrary to the distinction between nature and society, between facts and values, the powers of representation of the collective\* make it necessary to proceed slowly, according to due process, by offering the production of the common world the equivalent of a state of law. The contrasting concepts *de facto* and *de jure* are combined here in a single formula.

**ECONOMICS, ECONOMIZER:** Political economics as the economics of the political (short-circuiting of the State of law) is contrasted with economics as the formatting of ties and the elaboration of a common language allowing for the construction of models as well as the calculation of optima. Economics freed from politics (like epistemology\*) thus becomes a skill (on the same basis as politics or the laboratory sciences) and not the infrastructure of societies. An economizer is someone who practices economics and thus "performs" the economy.

**ENEMY:** This word is used first to designate the exterior of the collective, which, unlike nature\*, has not the passive role of a given, but the active role of something that has been placed outside (*see* Exterior-collective in mortal danger and, finally, something that may return at the following stage to demand its place as partner and ally. The enemy

is specifically not what is definitely foreign, immoral, irrational, or nonexistent.

**ENVIRONMENT:** The concern that one can have for it appears with the disappearance of the environment as what is external to human behavior; it is the externalized whole\* of precisely what one can neither expel to the outside as a discharge nor keep as a reserve.

**EPISTEMOLOGY, (POLITICAL) EPISTEMOLOGY, POLITICAL EPISTEMOLOGY:** In the proper sense of the term, "epistemology" refers to the study of the sciences and the procedures for such study (like science studies but with different instruments); in contrast, I use the term "(political) epistemology" (or, less kindly, "epistemology police") to designate the distorting of theories of knowledge in order to rationalize politics but without respecting the procedures for coordination either of the sciences or of politics (it is a matter of engaging in politics in a way that is protected from all politics, hence the parentheses); finally, I use the term "political epistemology" (without parentheses) to designate the analysis of the *explicit* distribution of powers between sciences and politics in the framework of the Constitution\*.

**ESSENCE:** Term from metaphysics that takes on a political meaning here; not the beginning of the process of composition\* or articulation\* (the term "habit\*" is reserved for that), but its provisional conclusion; there are indeed essences, but these are obtained by institution\* at the end of an explicit process that gives them durability and indisputability by attaching attributes to their substance. To recall this concrete history, I use the expression "essences with fixed boundaries."

**EXPERIMENTAL ANTHROPOLOGY:** The capacity of anthropologists to encounter other cultures used to depend on the certainty provided by mononaturalism\*; the anthropology I call experimental establishes new contact with other cultures, while rejecting both mononaturalism and multiculturalism (*see also* Diplomacy\*).

**EXPERIMENTAL METAPHYSICS:** Metaphysics is traditionally defined as what comes after or above physics, thus presupposing an a priori distribution of primary\* and secondary qualities\* that set-

ties the problem of the common world\*, the object of this book, too quickly. To avoid this premature solution, I call experimental metaphysics the search for what makes up the common world, and I reserve the deliberately paradoxical expression "metaphysics of nature" for the traditional solution that gave nature a political role.

**EXTERIORIZATION, EXTERNALIZATION:** Economists use the expression "externalities" to designate entities that cannot be taken into account but that play an important role (negative or positive) in the calculations; here, I give it a more general and more political meaning, to replace the customary notion of nature external to the social world; external nature is not a given, but rather the result of an explicit procedure of externalization (what one has decided not to take into account or what threatens the collective) (*see also* Enemy\*).

**FOLLOW-UP (POWER TO FOLLOW UP):** One of the three powers of the collective (with the power to take into account\* and the power to put in order\*); it seeks the test path that allows collective experimentation to explore the question of common worlds; it is procedural and not substantive; so long as it does not presuppose mastery, it is thus synonymous with the art of governing.

**GOOD SENSE, AS OPPOSED TO COMMON SENSE:** These terms are set in opposition, in order to replace critical discourse and the operation of unmasking; good sense represents the past of the collective, while common sense (the sense of what is held in common, or the search for what may be common) represents its future. Whereas it may be permissible to force good sense somewhat with venturesome arguments, it is always necessary to verify that one is finally rejoining common sense.

**HABITS:** Properties of propositions\* before the operations of the collective have instituted them in a lasting way as essences\*; this is the only way one can carry out the tasks involved in elaborating the common world without immediately running up against indisputable nature and indisputable identities and interests.

**HIERARCHY:** One of the two essential functions of the power to put in order\*; it is a matter of arranging propositions, which are by defini-

tion heterogeneous and incommensurable, into a single homogeneous order and according to a single relationship of order; an obviously impossible task that will have to be taken up again at the next iteration.

**HUMANS AND NONHUMANS:** To bring out the difference between civilian relations within the collective and the militarized relations maintained by objects\* and subjects\*, I use this expression, which is synonymous with propositions\* and associations\*. Its only significant is negative: it simply reminds us that we are *never* speaking of the subjects or objects of the old bicameralism\*.

**INANIMISM:** A neologism based on "animism," used to recall the anthropocentrism of a metaphysics that presupposes objects that are "indifferent" to the fate of humans; this makes it possible in fact to reform humans right away, by distinguishing between the primary (essential) qualities\* and the secondary (superficial) qualities\*.

**INSTITUTION:** One of the two requirements of the power to put in order\*, the one that makes it possible to respond to the requirement of closure and to prepare the re-collection of the collective as it goes through the next loop; the word often has a pejorative sense in the literature of the human sciences, as opposed to "spontaneous," "real," "creative," and so on; it is used in a positive sense here, as one of the forms of reason. I also use the expression "conceptual institution" as a synonym for "form of life."

**INTERNALIZATION:** *See* Exteriorization, externalization.

**LEARNING COMPACT:** Expression used to replace "social contract," which would bind humans together in a totalized fashion to form a society; the apprenticeship pact presupposes nothing but the common ignorance of the governors and the governed in a situation of collective experimentation\*.

**LEARNING CURVE:** An expression borrowed from psychology and management and used here to designate the situation of a collective deprived of the old solution once given to the question of its exteriority (one nature/multiple cultures) and obliged to resume experimentation with no guarantee other than the quality of its learning. Its follow-up is the object of the seventh task of the Constitution\*.

**LOGOS:** A multiform Greek term, to which we give the meaning "articulation\*" here; it designates all the speech impedimenta\* that are at the heart of the public thing\*, synonymous with "translation," it is defined not by clarity or even by a special attention to language, but by the difficulty of accompanying the reflexive expression of the collective engaged in the progressive composition of the common world\*.

**MATTERS OF CONCERN:** An expression invented to contrast with matters of fact and to recall that ecological crises have no bearing on a type of beings (for example, nature or ecosystems) but on the way all beings are manufactured: the unexpected consequences as well as the mode of production and the manufacturers remain tied to matters of fact, whereas they appear to be detached from objects\* properly speaking.

**MATTERS OF FACT:** The indisputable ingredients of sensation or of experimentation; the term is used to emphasize the political oddity of the distinction, imposed by the old Constitution, between what is disputable (theories, opinions, interpretations, values) and what is indisputable (sensory data).

**MILITANT ECOLOGY:** In a somewhat artificial way, the militant practice of ecology is contrasted here with the official philosophy of ecological thinkers, theorists of *Naturpolitik* who continue to use nature as a mode of public organization without noticing that this premature unity can only paralyze the movement of composition\*.

**MODERN:** Designates not a period, but a form of the passage of time; a way of interpreting a set of situations by attempting to extract from them the distinction between facts and values, states of the world and representations, rationality and irrationality, Science\* and society\*, primary qualities\* and secondary qualities\*, in such a way as to trace a radical difference between the past and the future that makes it possible to externalize\* definitively whatever has not been taken into account. Whatever suspends this passage without replacing it is *postmodern*. Whatever replaces the passage of modern time by taking into account again what has been externalized is *nonmodern* or *ecological*.

**MONONATURALISM, MULTICULTURALISM, MULTINATURALISM:** To emphasize the political character of the undue unification of the collective in the form of nature in the singular, the prefix "mono" is added, to bring out right away the kinship between the solution retained and *multiculturalism* (an Anglo-Saxon expression that has been adopted by political science): against a background of prematurely unified nature, prematurely fragmented and incommensurable cultures stand out. To designate the impossibility of the traditional solution, I add to naturalism, in a somewhat provocative fashion, the prefix *multi*.

**MORALIST:** One of the five professions called to participate in the functions of the collective defined by the new Constitution\*, defined neither by an appeal to values nor by a respect for procedures, but by an attention to the defects of composition\* of the collective, to all that it has externalized\* by denying to all propositions the function of means and offering to keep them as ends.

**NATURE:** Understood here not as multiple realities (*see* Pluriverse\*) but as an unjustified process of unification of public life and of distribution of the capacities of speech and representation in such a way as to make political assembly and the convening of the collective in a Republic\* impossible. I am combating three forms of nature here: the "cold and hard" nature of the primary qualities\*, the "warm and green" nature of *Naturpolitik*\*, and finally the "red and bloody" nature of political economics\*. *To naturalize* means not simply that one is unduly extending the reign of Science to other domains, but that one is paralyzing politics. Naturalization can thus be carried out on the basis of society\*, morality\*, and so on. Once the collective has been assembled, there is no longer any reason, by contrast, to deprive oneself of expressions of common sense and to use the term "natural" for something that goes without saying or something that is a full-fledged member of the collective.

**NATURPOLITIK:** On the model of *Realpolitik*, this term designates a deviation from political ecology that claims, in opposition to militant ecology, to be renewing public life, even while keeping intact the idea of nature\* invented to poison it.

NONHUMAN: See Humans and nonhumans.

OBJECT, AS OPPOSED TO SUBJECT: Here we are contrasting the subject-object pair with associations between humans and nonhumans. "Objects" and "objectivity," along with "subjects" and "subjectivity," are polemical terms, invented to short-circuit politics once nature\* has been put in place; thus we cannot use them as citizens of a collective that can recognize only their civil version: associations of humans and nonhumans.

OLD REGIME: This deliberately simplistic term (and the more polemical term "Cave") is used to bring out the contrast between the bicameralism\* of nature and society, on the one hand, and that of the new Constitution\*, which allows a state of law, on the other. Just as the French Revolution called into question the legitimacy of the aristocratic power of divine right, political ecology calls into question the aristocratic power of divine "Science."

ORDERING (POWER TO PUT IN ORDER): One of the three powers of representation of the collective (said of the lower house); answers the question "Can we form a common world?"

PERPLEXITY: One of the seven tasks through which the collective makes itself attentive and sensitive to the presence outside itself of the multitude of propositions that may want to be part of the same common world\*.

PLURIVERSE: Since the word "uni-verse" has the same deficiency as the word "nature" (for unification has come about without due process\*), the expression "pluriverse" is used to designate propositions\* that are candidates for common existence before the process of unification in the common world\*.

POLITICAL ECOLOGY: The term does not differentiate between scientific ecology and political ecology; it is built on the model of (but in opposition to) "political economy\*." It is thus used to designate, by opposition to the "bad" philosophy of ecology, the understanding of ecological crises that no longer uses nature to account for the tasks to be accomplished. It serves as an umbrella term to designate what

succeeds modernism according to the alternative "modernize or ecologize."

POLITICS: Used here in three senses that are distinguished by periphrasis: a) in its usual meaning, the term designates the struggle and compromises between interests and human passions, in a realm separate from the preoccupations of nonhumans; in this sense, I use the expression "politics of the Cave\*"; b) in the proper sense, the term designates the progressive composition of the common world\* and all the competencies exercised by the collective; c) in the limited sense, I use the term to designate just one of the five skills necessary to the Constitution, the one that allows faithful representation by the activation—always to be repeated—of the relation between one and all.

PRIMARY QUALITIES, AS OPPOSED TO "SECONDARY QUALITIES": A traditional expression in philosophy to distinguish the fabric of which the world is made (particles, atoms, genes, neurons, and so on), as opposed to representations\* (colors, sounds, feelings, and so on); primary qualities are invisible but real and never experienced subjectively; secondary qualities, visible but nonessential, are experienced subjectively. Far from being an obvious division, it is the operation of (political) epistemology\* par excellence that is undone by experimental metaphysics and forbidden by the new Constitution.

PROGRESSIVE COMPOSITION OF THE COMMON WORLD: Expression that replaces the classic definition of politics as an interplay of interests and powers: the common world is not established at the outset (unlike nature\* and society\*) but must be collected little by little through diplomatic work\* done to verify what the various propositions\* have in common. *Composing* is always contrasted with *short-circuiting*, shortcut, arbitrariness (see also Due process\*).

PROPOSITION: In its ordinary sense in philosophy, the term designates a statement\* that may be true or false: it is used here in a metaphorical sense to designate not a being of the world or a linguistic form but an association of humans and nonhumans before it becomes a full-fledged member of the collective\*, an instituted essence\*. Rather than being true or false, a proposition in this sense may be well or badly articulated. Unlike statements, propositions insist on the dy-

dynamics of the collective in search of good articulation, the good cosmos\*. To avoid repetition, I sometimes say "entities" or "things\*".

**RELIABLE WITNESS:** Designates situations capable of testing the faithfulness of representations, in the knowledge that the distribution between what speaks and what does not speak is no longer definitive and that there are just spokespersons\* whom one doubts, just speech impedimenta.

**REPRESENTATION:** Used in two radically different senses, which are always distinguished by the context: a) in the negative sense of social representation, it signifies one of the two powers of (political) epistemology which forbids all public life, since subjects or cultures have access only to secondary qualities\* and never to essences\*; b) in the positive sense, it designates the dynamics of the collective which is re-presenting; that is, presenting again, the questions of the common world, and is constantly testing the faithfulness of the reconsideration.

**REPUBLIC:** Does not designate the assembly of humans among themselves, nor the universality of the human detached from all the traditional archaic bonds; on the contrary, by taking another look at the etymology of *res publica*, the public thing\*, it designates the collective\* in its effort to undertake an experimental search for what unifies it; it is the collective assembled according to due process\* and faithful to the order of the Constitution\*.

**REQUIREMENT, DEMAND:** Terms that take the place of the old division between necessity and freedom; each of the functions of the collective\* defines a requirement: external reality for perplexity\*, the finitude for consultation\*; publicity for hierarchy\*; closure for institution\*. The expression "essential requirements," borrowed from the vocabulary of standardization, makes it possible to establish the division between the habits\* and the provisional essences\* of propositions\*.

**SCENARIZATION:** One of the seven functions that the new Constitution\* is to fulfill and that amounts to defining the border between inside and outside; but instead of starting from an already-constituted

unity (nature\* or society\*), the various skills (of the sciences, politics, government, and so on) propose *scenarios* of unification that are all provisional and that the reconsideration of the collective will quickly make obsolete.

**SCIENCE, AS OPPOSED TO THE SCIENCES:** I contrast Science, defined as the politicization of the sciences by (political) epistemology in order to make public life impotent by bringing to bear on it the threat of salvation by an already unified nature\*, with the sciences, in the plural and lowercase; their practice is defined as one of the five essential skills of the collective in search of propositions\* with which it is to constitute the common world and take responsibility for maintaining the plurality of external realities.

**SEPARATION OF POWERS:** Traditional expression in law and political philosophy, customarily used to designate the difference between the legislative and the executive (and sometimes the judicial) branches of government; I use it: a) in the negative sense, to designate the distinction between nature\* and society\* (which makes it possible to see the latter as an element of the old Constitution and not as a given); b) in the positive sense, to designate the indispensable distinction between the power to take into account\*, the power to put in order\*, and the power to follow up\*. To maintain it is one of the seven tasks of the Constitution\*.

**SOCIETY, SOCIAL:** The terms "society" or "social world" are used to designate the half of the old Constitution\* that has to unify subjects detached from objects and always subjected to the threat of unification by nature; it is an already-constituted whole that explains human behavior and thus makes it possible to short-circuit the political task of composition; it thus plays the same paralyzing role as nature\*, and for the same reasons. The adjective "social" (in "the prison of the social sphere" or "social representation\*" or "social constructivism") is thus always pejorative, since it designates the hopeless effort of the prisoners of the Cave\* to articulate reality while lacking the means to do so.

**SPEECH IMPEDIMENTA:** Designates not speech itself but the difficulties one has in speaking and the devices one needs for the artic-

ulation\* of the common world—to avoid taking logocentric words (*logos*\*, “consultation\*,” “spokesperson\*”) as facile expressions of meanings that would not need any particular mediation to manifest themselves transparently.

**SPOKESPERSON:** An expression used at first to show the profound kinship between representatives of humans (in the political sense) and representatives of nonhumans (in the epistemological sense). Next, the term is used to designate all the speech impedimenta\* that explain the dynamics of the collective. The spokesperson is precisely the one who does not permit an assured answer to the question “Who is speaking?” (*see also* Reliable witness\*).

**STATE:** Just one of the instances of a collective in the process of exploration; the entity that allows the exercise of the power to follow up\*; that has a monopoly on the designation of the enemy\*; that is the seat of the art of governing; that guarantees the quality of the collective experiment.\*

**STATEMENT:** As opposed to a proposition\*, a statement is an element of human language that seeks to verify its adequacy to the world of objects through an operation of reference. This awkward distinction between words and world amounts to an interruption of the collective exploration.

**SUBJECT:** *See* Object.

**TAKING INTO ACCOUNT (POWER TO TAKE INTO ACCOUNT):** One of the three powers of the collective (said to belong to the upper house), the one that obliges us to answer the question “With how many new propositions are we to constitute the collective?”

**THING:** We are using the term in the etymological sense that always refers to a matter at the heart of an assembly in which a discussion takes place requiring a judgment reached in common—in contrast to “object\*.” The etymology of the word thus contains the index of the collective\* (*res, ding, chose*) that we are trying to assemble here (*see also* Republic\*).

**UPPER HOUSE, LOWER HOUSE:** *See* Bicameralism.

## Notes

### Introduction

1. It is surprising to note that, while most of the issues raised by the ecology movement depend entirely on the sciences for their visibility, the exceptions to this rule remain few in number. We may think, for example, of the greenhouse effect, or of the progressive disappearance of the cetaceans; in every instance, the scholarly disciplines turn out to be on the front lines, which was not the case with other social movements. We find one of the exceptions in Serge Moscovici (1977 [1968]), an all the more precious exception in that the book was written more than thirty years ago. Still, the seminal book by Michel Serres (1995) is the one that establishes the closest link between questioning that focuses on the sciences and the questioning addressed to ecology: from the standpoint of a joint anthropology of law and science. The present work extends some of Serres's advances on the contractual function of the sciences. Ulrich Beck (1994), in a book that has been especially important for my own work. For the rest, except for works on public participation (Irwin and Wynne 1996; Lash, Szerszynski, and Wynne 1996), the intersections between ecology and science studies remain astonishingly sporadic. Still, we have Steven Yearley (1991), Klaus Eder (1996), and George Robertson (1996).

2. All the terms marked with an asterisk are discussed in the glossary at the end of the book, p. 237. As I have abstained from any linguistic innovations, I use this sign to remind readers that certain common expressions must be understood in a somewhat technical sense that will be specified little by little.

3. In the “geopolitics” of the philosophy of nature, France benefits from a comparative advantage because the notion of an ahuman nature that ought to be protected has never taken root here. From Diderot to François Dagognet (1990), by way of Bergson, André Leroi-Gourhan (1993), and André-George Handricourt (1987), we find in France a rich “constructivist” tradition that praises the artificiality of nature, thanks to the industrious figure of the engineer. For example, we find a striking version of this French-derived constructivism in Moscovici: “The world turns its back on intelligence, molts