

PO~~L~~ITICS

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My preoccupation with what is now called "the environment" goes way back. In fact, it is my professional occupation. I am an engineer, a government functionary charged with land use, that is, with domesticating a certain environment for the needs

and desires of human beings. When people speak of ecology today, one has the impression they only mean protecting the birds and the flowers against human activity. But things are a little more complicated. Is a landscape gardener someone who attacks or despoils nature? Is an architect someone who improves or degrades the urban environment? The oldest "ecological" journal in France was originally called *Revue des voies et chemins*: it was and still is a journal of public works engineers, a professional journal of land-use specialists, urbanists. It has just

once the product of the species' activity and the condition of its survival, the interdependence of the three factors is complete. A classical problem of ecology is typically one of hunting: how many square miles of hunting grounds are needed for the survival of ten foxes? And how densely populated with rabbits must these hunting grounds be, in order for the foxes to reproduce? Since the foxes are obviously going to eat the rabbits, their numbers will diminish; but as the population of the foxes diminishes in its turn, through starvation, the number of rabbits will rise again, and so on.

Now consider a *social* species. Social species are those which have a division of labor, such as ants, termites, beavers, etc. Under these conditions, the species itself forms part of each individual's environment, and ethology, or the interrelation of individuals of the same species, then becomes a decisive aspect of ecology. In the

Sustainable Development: History and Horizons



celebrated its one-hundred-fiftieth anniversary, under the new name of *Environment magazine*.

In short, the environment is a very old concern of public policy, and ecology is not only a matter of defending virgin nature against an evil humanity. What is the relation between political ecology and ecology as a natural science applied to the human species? How can we define the ideal that seems to be shared by scientific and political ecology, the ideal of sustainable development? These are the first questions I will attempt to answer. Then I will briefly examine the history of unsustainable human development, the crises it has provoked and their solutions, before evoking the great challenges on the horizon of the twenty-first century, when political ecology will no doubt come to embody the idea of progress itself.

Ecology, Politics, and Sustainable Development

Scientific ecology is the science of the triangular relation between a *species* (and the individuals of this species), its *activity*, and its *environment*. As the environment is at

case of the human species, ethology is called sociology or anthropology.

Consider further that the human species is political. Not only are humans genetically programmed to live in hordes, bands, tribes, and so on, but what is more, the horde, band or tribe organizes itself into a city where the individuals of the species define their behavior and activities by deliberation: together they judge what is good or ill. This makes them responsible for their own activity, for its effects on the territory, and thus for the way they ensure the possibility for succeeding generations to continue living on the same territory, with the same methods. In other words, the human species, the only species which is at once social and political, gives rise to a particular kind of ecology, which is called *political ecology*.

It might be objected that political ecology is just what results when people start using ecology to play politics. In fact, it all comes down to the same thing. As the saying went twenty-five years ago, "If you don't take care of politics, politics will take care of you." And if we don't take care of the politics of ecology today, we can be sure that the political ecology of reality will take care of us all. If urban policy, agricultural policy, labor policy,

and international policy do not concern themselves with ecological problems, that is, with problems involving the triple relation between the species, its activity, and its environment, then those policies will produce perverse effects that will render their perpetuation *unsustainable*, unbearable in the long run. And at the extreme, these unsustainable policies will even threaten the survival of the species. Thus we understand that one of the possible objectives of all politics is that of sustainable development. In fact, humans are by no means obliged to seek sustainable development. The choice is always open, as Sophocles remarked quite early in the game: "O wondrous subtlety of man, that draws to good or evil ways!" To make the choice of the life and survival of human beings is to make the choice of sustainable development.

What exactly is the meaning of the adjective "sustainable"? The word has two dimensions: it is synchronic, directly regarding the present, because a development model is only sustainable if it is agreeable to everyone and can satisfy everyone's needs; but it is also diachronic, extending over a long span of time, because sustainable development must endure. In the postwar period, for example, the developed countries went through a model of development in which buying power rose rapidly, at the same pace as productivity, thus guaranteeing full employment and the growth of "gross material happiness" for each individual. But that was an unsustainable model. Had we continued that way, had we extended that development model to the whole of humanity, we soon would have exhausted all terrestrial resources and rapidly saturated the atmosphere with carbon dioxide, to mention just one form of pollution.

The definition of sustainable development now adopted by all organs of the UN is the following: "a development model which allows the satisfaction of all the needs of a generation without compromising the possibility for successive generations to satisfy their needs." Clearly, the notion of "satisfying the needs of all human beings" is extremely ambiguous, because the rich and the poor do not demand the satisfaction of the same needs. Now, the contemporary world is wracked by frightful inequalities between human beings. Thus the

definition goes on to envisage an *order of satisfaction*, "beginning with the needs of the poorest." This is the criterion of minimal justice. It is not my criterion, but the one upheld by John Rawls in his *Theory of Justice*. The fundamental problem, from this point of view, is not that there are inequalities: some inequalities are acceptable, as long as they permit an improvement in the situation of those who are worst off. In other words, what counts in a comparison of two situations is the level of those who profit the least from each. This definition won unanimous support in the UN, obviously because it could satisfy even the richest countries.

Such is the official definition of sustainable development, ranked among the rights of all human beings at the major international conferences that have punctuated the last decade of our second millennium: Rio, Copenhagen, Cairo, Beijing . . . As we have just seen, this definition is a minimal compromise, extremely formalistic and abstract, representing a step back from the full implications of what the pioneers of the 1970s called "ecodevelopment."

The original idea of ecodevelopment began from the observation that the development model of the seventies entailed too much consumption of raw materials and produced too much waste. The first major United Nations Conference on the Environment, in Stockholm in 1972, endorsed an ecodevelopment model in which local communities were supposed to guard against these two errors. Thus the term "ecodevelopment" immediately conveyed a sharp critical connotation with respect to the dynamics of economic liberalism. But this first conference had no ambition to dictate obligations. Then came the second major conference, in Rio in 1992, preceded long in advance by a series of preparatory meetings. This was the time to take firm decisions. One of the preparatory meetings was the United Nations Commission for the Environment, presided by Mrs. Brundtland, the social-democratic prime minister of Norway. The commission immediately ran up against the opposition of the United States, which refused any discussion of ecodevelopment. It was permitted to say that the needs of the present generation should be satisfied without compromising the possibilities of succes-



sive generations, and to call this demand "sustainability." But the term "ecodevelopment" was taboo, to the extent that it connoted the end of unbridled free trade, the prohibition of the exploitation of one territory by another, and so forth. In short, "sustainable development" became the politically correct euphemism for "ecodevelopment."

Call it the homage of vice to virtue: the hypocrisy of the euphemism at least allows us to pose the problem (sustainability), though without straying too far along the path of solutions (ecodevelopment). As I mentioned before, no one is obliged to seek sustainable development. In point of fact, the governing elites of many countries prefer unsustainable development—unsustainable for their own people, for other peoples, for future generations. Malaysia, for example, is a country that develops by massacring its indigenous peoples and destroying its forests, and what is more, it claims the right to go on doing so for the next one hundred and fifty years, taking the actions of Europe and the United States as precedents. Ultimately, sustainable development is not just one economic argument among others; it is a *categorical imperative* that is slowly asserting itself through the process of international public debate. But it is not yet accepted with the (admittedly relative) force of the Biblical imperative "thou shalt not kill."

For this reason, we can give a purely political or ideological definition of the political ecologists: those who struggle to promote sustainable development in the political arena. This position is a direct consequence of our initial definition. We began with the question of what ecology was for any species and we saw why a social and political species must seek sustainable development, if it reasons correctly from the viewpoint of its long-term interest as a species. In the field of politics, the political ecologists are those who struggle to obtain sustainable development. They struggle in the name of a certain conception of the general interest of humanity, against political and social forces who do not take that interest into account. Why were the Malaysian elites able to declare themselves resolutely against the imperatives of sustainable development at the Rio conference? For the same reasons that the old French nobility and Louis XVI could say: "After us, the deluge!"



George Bush, a de facto ally of Malaysia in the attempt to limit the scope of the Rio conference, displayed exactly the same attitude when he declared: "Our model of development is not negotiable."

Indeed, if human society remains as unequalitarian in the future as it is today, not all individuals will need to seek sustainable development—as long as they are on the right side of the dividing line. Today's generation does not need the satisfaction of all successive generations. But the majority of human beings, from generation to generation, do aspire to sustainable development. The conflicts exist because of the fact that in a social and political species, *social relations* develop: relations between the sexes, between social classes, between communities. Some of these social relations are contradictory: the interests of certain people are not the same as the interests of others. And although it can be maintained that all human groups have an interest in getting along with each other, the horizon of individual life being limited, once again the individual can conclude: "After me, the deluge." Consequently, human ecology is structurally informed by these social relations, which shape the way the species organizes its activity and determine how the species, organized in this way, will appropriate its environment (which itself is the product of past activity). In other words, ecological problems depend on social relations. The ecological crises of a given era are also the crises of social relations in that era.

A Short History of Ecological Crises

Consider the society that existed before the neolithic revolution. The neolithic is the process whereby, some twelve thousand years ago, human beings learned to plant, to raise animals, to write, and to build cities. Pre-neolithic societies are already societies, but societies whose members hunt and gather. In other words, human beings in those societies look on their environment as an exterior which contains their potential sustenance; they must fight to take from this natural environment what they need to feed and shelter themselves. In this respect they are not far from the situation of the foxes in relation to the rabbits. Their ecology obeys the same law of "predator-prey": it is an ecology that depends on the *carrying capacity* of the territory under consideration, that is,

on the quantity of human beings that can be nourished by a territory, given certain techniques of hunting and gathering. If they take too much, the carrying capacity of the territory is lowered and either they are compelled to migrate or they are decimated by hunger. The improvement of hunting techniques allows them to approach the ceiling of the carrying capacity of humanity on a territory, but at the risk of exceeding that ceiling, since the improved techniques do not increase the quantity of game. Hence the need for these people to be nomadic.

The example of preneolithic society shows in a very simple way how a particular kind of ecological crisis corresponds to a particular kind of social organization. In preneolithic society, famine is due to the fact that there is not enough game to be killed or fruit to be gathered, and migration in search of other territories is a solution. Like any human organization structured into social relations, this political ecology is regulated by *crises*, a crisis being a situation in which it is no longer possible to go on as before but in which one doesn't yet know what is to be done next. This is summed up in Gramsci's very beautiful phrase "the old dies away, the new cannot yet reach the light." Some of these regulating crises are relatively little ones in which the old dies away, but the shape of the new is more or less apparent, the way of overcoming the crisis is clear (in the case of nomadic hunters, it suffices to migrate). Others are major crises in which the new is completely unimaginable. The major crises are more devastating, but also much more interesting, since they can only be overcome by an *invention*.

The transition to the neolithic came about after a series of increasingly severe crises. Cultivating plants and raising domestic animals—the twin mainstays of the neolithic—meant shifting from the idea that it suffices to take from the environment to the idea that one must improve the environment so that it will become more productive in the future. Improving the animals so that they give more milk and bear their young within the protective circle of the herd. Improving the plants so that they become richer in sustenance. In this way, the carrying capacity of the territory itself could be increased.

Moreover, this revolution increased the capacity of human societies for differentiation and thus allowed the advent of the city, the appearance of subgroups within human communities, people devoting themselves to

activities other than cultivating the earth: counting, commanding, carrying out sacrifices, etc. This social differentiation is distinct from the preneolithic hierarchy, in which the chief was simply the best hunter. Certain classes exonerated from productive activity begin living off the product of others' labor, in exchange for services which are often very real (the state appears because it renders services to society, distributing water, establishing land surveys, and so on) but which at the same time confer an often abusive right to the product of the community. Here a second type of ecological problem develops, no longer one that depends on the carrying capacity of a territory (which can be increased with new techniques), but one that stems from the growing portion taken from this capacity by people who do not produce.

The ecological crises then become more complex. A typical one is the "great bisecular fluctuation" in Europe which began around 1340 and lasted for two centuries. This crisis broke out with the arrival of the Great Plague precisely at the moment when Europe had reached the point where its carrying capacity was completely saturated, given the available agricultural techniques and the portion taken by nonproducers, in this case feudal lords who spent their time waging war. The Great Plague struck a peasantry weakened by the physical limits of its arable land and subjected to heavy tax levies by the lords. In a few years, Europe lost more than half of its population; it would require two centuries to regain the population level of 1340. This is an example of a crisis at once economic, ecological, social, and demographic. Given the relations of production (feudalism, with taxes in kind or in labor) and the techniques known at the time (the swing plow, fertilization by burning crop stubble), the carrying capacity of the land was outstripped, and finally collapsed beneath the effect of aggression from another species (the plague microbes). Death was an initial solution to the crisis, albeit a particularly horrid one: the population diminished until the point where the plague could no longer spread and the carrying capacity of the European territory became sufficient again.

This great crisis brought profound modifications to



the techniques of production and to social relations. Three-year rotation of fields and the association between multicrop cultivation and animal husbandry (with the animal waste serving as fertilizer for the wheat) marked a considerable progress, in the form of an improvement of the earth itself. With a share of the activity serving to better the environment, the labor/environment relation became more sustainable. But the development of these techniques, which constitute a kind of second degree of the neolithic revolution (labor expended to improve the earth), meant that the peasants had to be able to trust that the labor they furnished would come back to them in another form, that of a higher yield of products for consumption or for sale. This entailed a limitation of the portion taken by the lords. In fact, the new economy of the renaissance implied the transition from taxes in kind or labor to taxes in money, the shift from the metayage system to ten-

ant farming. This is the phenomenon that triggered the process of constant progress all the way to the nineteenth century: the "agricultural revolution" of modern times.

But I have only presented the bright side of things: the revolution

carried out against the lords, against the predators. It is often forgotten that this revolution was also carried out against the peasants themselves. For the peasantry of the feudal era worked two kinds of fields: the fields of the lords, and those of the village community (the *commons*). Now, it is clear that the peasants who accepted to furnish the effort required to improve the land were also going to demand that they be allowed to work the same land in years to come. And for that, the idea of common properties had to be done away with. The farmers who carried out the agricultural revolution of modern times were people who struggled to abolish the common properties, to "enclose" them. As to the others, at first they were able to work on the land of the rich peasants, thus forming an "agricultural proletariat." But the more the productivity of agricultural labor increased, the less farmers needed agricultural laborers to work their land. Thus there developed an urban proletariat alongside the agricultural proletariat. Traders and artisans began to hire "proletarians" who had nothing to sell but their muscular force: they had neither

land nor looms, but they were available to work. The resolution of the great bisecular fluctuation, the great ecological crisis, opened up a new destiny for Europe: the *capitalist revolution* in agriculture and in industry (at first, the textile and construction industries).

Capitalism is constituted of complex social relations. The entrepreneurs have money, with which they can hire proletarians. Thus they exchange money for work, and additionally take care of selling the products. The entrepreneur serves as the intermediary between the producer and the buyer. He takes the risk of selling or not selling, but in return he demands the right to fix salaries and organize the work. Capitalism is thus liable to much more rapid and spectacular changes than feudalism. Feudalism, as we have seen, went through several stages: taxes through forced labor, taxes in kind, taxes in money. But over two centuries, capitalism has gone through far more numerous and varied development models, depending on the period and the country.

Initially, the situation is always the same: the rich are surrounded by completely resourceless people who put themselves at their service. This is the first stage of primitive accumulation, where rich merchants or important artisans can shamelessly exploit wage-earning proletarians. As there is a seemingly infinite offer of available hands, or what Third-World economists call a "Lewisite" labor offer (after the theorist Arthur Lewis), the salary for which labor power can be purchased is negligible. The first type of ecological crisis met by the human species under primitive capitalism arose from the fact that salaries did not allow most workers to correctly reproduce. Indeed, the first ones in England to denounce capitalism were not the workers (they couldn't!) but the recruiting sergeants. They pointed out that in certain counties, the pressure of businesses on the labor market—to recall the carrying-capacity image of animal flocks subject to hunters—was such that at seventeen or eighteen years of age, the young men were unable to bear arms. In other words, capitalism undermined the possibility of recruiting an effective English army! Rapidly, over the first half of the nineteenth century, the recruiting sergeants were joined by doctors who demanded an end to overexploitation, particularly of



children in the coal mines. In a sense these philanthropic doctors, or "hygienists," backed by the militants of the fledgling workers' movement, were the ecologists of the first industrial revolution. This is a very interesting point, which I frequently rediscover in the Third World today: very often, when the mayor of a city in Mexico,

Peru, or Brazil is introduced to me as an "ecologist," I find he is a doctor, and that his municipal council is composed primarily of union organizers.

Thus when capitalism became the dominant mode of production it ran up against a very specific crisis, for it had failed to produce rules obliging the entrepreneur to pay his workers at least well enough so that they could reproduce themselves and their families. In the face of this crisis, society began to invent. It began by limiting the right to employ children, so that the entrepreneurs would be obliged to pay the parent adequately until the children had completed their growth. This was the struggle carried out by the most enlightened capitalists, those who sought the sustainability of capitalism, and by the most enlightened unionists, those who sought the sustainability of wage labor.

After the Second World War, these struggles would finally lead to a model of development known as "Fordism." This extraordinary case resulted from the struggles of the unionists and the reflection of the most intelligent of the capitalists, including both industrialists and bankers (Ford, Keynes, etc.). Society finally realized that according to the very logic of capitalism, its goal being to sell commodities, what must be created is the largest possible number of clients. As Henry Ford said, "The

working class being the most populous class, it must become a wealthy class, to allow for the sale of our mass production." Ford's idea, broadly shared by the unionists of course, was that workers' salaries had to be systematically increased. And this systematic increase in the buying power of wage labor was what spurred the economic development of the postwar period.

The Ecological Crises of Our Time

To achieve that result, a great crisis had been necessary. Thanks to the alliance of the unionists and the hygienists, the physical sustainability of wage labor had been attained, with the prohibition of child labor and more generally the reduction of labor time, as well as the struggle against the insalubrity of workers' housing (these being the two major concerns of the workers' struggle in Europe from 1840 to 1920). The stakes of the years 1930-1950 were to guarantee the ability not only to survive but to live well, "living well" being reduced, however, to "consuming a lot." This version of the good life was also the bad life: it implied the destruction of the popular communities celebrated by the cinema of "poetic realism," the destruction of an entire workers' culture where people didn't live so miserably after all. But thanks to the "social progress" of the postwar years, the evenings at the riverside dance halls gave way to the evenings by the TV set. We became accustomed to measuring the happiness of life by increases in buying power. This new revolution allowed the resolution of one of capitalism's fundamental problems, the problem of the client, since capitalist production was now principally sold to the workers themselves.

But this revolution led to a new type of ecological crisis: the crisis of *overconsumption*, symbolized by the traffic jam and the destruction of the environment. The discourse of the environment is a new one, wielded by other forces than the unionists. In the early days of capitalism, the hygienist doctors and the unionists forged a natural alliance. As soon as the minimum was obtained (the prohibition of child labor, the eradication of workers' slums) and the decisions were increasingly between working less and earning more, taking less risks and obtaining "risk benefits," etc., what occurred was a dissociation between the doctor, the hygienist, or the ecologist, on the one hand, and a certain type of unionist, on the other. A "paycheck unionism" appeared, ready to accept a regression in the quality of life in exchange for heightened buying power. This is why around 1970, which marks the culminating moment of the Fordist period, political ecology developed independently of the workers' movement and often even in conflict with it. In the United States, Germany, France, and Italy, a major dif-

ference developed between those fighting for a better salary and those fighting for better conditions, those fighting for more benefits and those fighting for less harm, those who demanded "a job, whatever the price" and those who refused a polluting factory.

This divergence is extremely interesting, because unlike the shared struggle of the unionists and the hygienists, it allows us to distinguish two aspects of "sustainability." People began to become conscious of the fact that a society which immediately and equitably satisfies the essential needs can in fact be dangerous, because it poisons the aquifers, because it renders urban growth uncontrollable, because over only a few generations it can make the survival of precious species impossible, because it worsens the lot of human beings living thousands of miles away. The effects of these ecological crises of overconsumption were initially local (traffic jams, air pollution, noise, etc.); indeed, political ecology as a social movement had mobilized itself against them already in the 1960s. Then, in the 1980s, we became conscious of the "global" crises, such as the erosion of the ozone layer, an aspect of the greenhouse effect. In these global crises, the "authors" of an unsustainable form of development can live in one time and place (the United States and Europe, at the end of the twentieth century) while the victims live in another time and place (Bangladesh, in the middle of the twenty-first century).

Indeed, this new consciousness of ecological problems led us to relativize the very success of the "social market economy" promised in postwar Europe by the Christian-democratic and the social-democratic parties. This development model, the European variant of Fordism, was considered a good capital-labor compromise, despite all the criticism that was addressed to it at its zenith. It only needed to be "improved." Today, however, we realize it was completely untenable. For example, the destruction of the ozone layer is taking place today, whereas for many years now it has been prohibited to release chlorofluorocarbons into the atmosphere; the problem is that the molecules of chlorine gas were emitted twenty years before, in the northern hemisphere for the most part. As to the greenhouse gases, principally carbon dioxide, they remain in the atmosphere for an average of one hundred and fifty years. All the carbon dioxide emitted since the industrial revolution is still there. The gases emitted between 1945 and

1975 will be in the atmosphere until the year 2100. Now, what counts is not the rate of emission, but the quantity of carbon dioxide in the atmosphere. A twofold increase in the amount of carbon dioxide will provoke an increase of two-and-a-

half degrees centigrade in the mean temperature of the planet, and a rise in the sea level of thirty to sixty centimeters. At the current rate, these two changes will make life in Bangladesh impossible around 2050. Given that Bangladesh will then number around two hundred million inhabitants, one can imagine the dimensions of a Bengali evacuation to India. Not to mention the evacuation of the Egyptians and North Africans to Europe after the flooding of the Nile delta and the disappearance of the North African agricultural strip along the coast.

Thus the social and economic "conquests" of the years 1950-1970 have had serious ecological consequences. Today, the compromise of those years has entered a crisis, and throughout the world certain political and economic leaders are attempting to bring wage labor back to the situation of the 1930s, and indeed, to the situation of the nineteenth century. This regressive movement has been called the "hourglass society." Because of it, all the different types of ecological crises that emerged in succession since the beginnings of capitalism have been reactivated: global ecological crises (for more and more greenhouse gases continue to be produced), local ecological crises of overconsumption (for the upper classes, in Brazil no less than Europe, consume more and more), the dangerous working conditions of the early twentieth century, even the crises of early capitalism. Hunger has reappeared (in England, the life expectancy of the least well-established third of the population has begun to diminish) and diseases linked to unsanitary conditions are on the rise (for example, lead poisoning is again a problem in Paris . . .).

Are we then heading toward a new convergence of political ecology and movements of defense for wage earners and more generally for "the poor"? It is quite probable. But much still remains to be understood about the split that developed between the workers' movement and the ecology movement, after the former had obtained, over the course of the twentieth century, a minimum of laws allowing wage earners to survive and



even to profit from progress. It was then that a certain conception of "progressive politics" represented by communism and social democracy became rigidified, while political ecology developed into an autonomous movement.

Political Ecology, the "Progressive Movement" of the Twenty-First Century?

Because they share the same origin (resistance to the excesses of capitalism), the movements of political ecology and socialism bear a number of initial similarities. First, they both adopt a materialist discourse: "These are the current forces of production, these are the current relations between productive human beings, and this is the basis for our reflection." More precisely, this is a discourse of historical materialism: the Marxists, the most sophisticated theorists of the workers' movement, develop a history of the modes of production comparable to the broad picture of the history of humanity's relation to the environment which I have just sketched out. Second, both the Marxist and the ecologist discourses are "historicist": they hold that if today we can make a given judgment, it is because we have arrived at a particular point in history. Historicism is the excessive tendency to believe that Minerva's owl only takes flight after nightfall, as Hegel put it. Only when it is all over, when it is already too late, do we begin to understand what has



happened in history. Thus the workers' movement and political ecology meet in their alarmist, doom-saying proclamations. But third (and as a counterpoint to their historicism), both discourses are dialectical: they think in terms of tensions in a system, not in terms of places in that system. For example, the social tensions caused by the exploitation of proletarians result in workers' movements, thanks to which modes of regulation are set up which require capitalism to ensure the survival of wage earners. In the same way, the tensions raised by capitalist disrespect for the environment set off ecological movements which impose protective measures. Fourth, both are "progressive movements": they uphold progress

in solidarity and sustainability against those who say "After me, the deluge."

Let us pause over this last point. It is sometimes said that ecology is a concern of the rich; the phrase was pronounced at the Rio conference, for example. Ecology is thought of as a luxury, an indulgence after one has satisfied "all the rest." Now, the problem is that "all the rest" (that is, immediate needs) is already linked to ecological matters, though they are not designated as such. There is no way to distinguish between "environment" and "development" in the Sahel or in northeastern Brazil: for a very poor peasant, the improvement of the environment is development. The same is also true in a slum: is the installation of a sewer system and of drinking water urban ecology or "social development"? In reality, the same nongovernmental associations took part in the Rio conference (on the environment) and the Copenhagen conference (on social development). But in the already relatively rich countries, a large part of the middle classes will be opposed to ecology, considering it as a menace to the progress of its well-being, because respect for the environment seems to limit its buying power! In point of fact, ecology appeals today to the very poor and the very rich, it irritates the middle classes of the middle countries (including wage earners). As we have just seen, ecology and the social movements of the twentieth century began to split when unsustainable possibilities for a capital/labor compromise appeared within capitalism. But the differences run deeper.

The first difference is that ecological materialism is no longer teleological, whereas the principle theorists of socialism, the Marxists, begin with the presupposition that the development of the forces of production is the foundation of all social and even moral progress: because we are more and more able to appropriate nature, we will live better and better. To which moderate ecologists answer "That depends," and extreme ecologists retort: "On the contrary, the development of the forces of production only makes matters worse." For my own part, I am a moderate ecologist. The ecologists do not share this vision of history according to which the development of the forces of production, or in other words, the capacity to act upon nature, directly determines progress. There can be bifurcations or U-turns, progress on certain levels and regression on others, or progress at

certain time which provokes regression at another time.

A second difference has to do with historicism. We no longer believe that there is a moment when Minerva's owl takes flight. There is no decisive moment when past and future become clear. We now know that every definition of "the good life" is the object of a permanent struggle which no doubt will never be solved, not only because there will always be oppressed and oppressors, but also because the questions are complex and often undecidable. For example, relations between men and women were formerly considered natural, and consequently remained outside the field of political deliberation. The Greeks deliberated between men and never even dreamt of the possibility that women could be given the vote. Why did women obtain the right to vote long after wage earners had obtained the freedom to organize? The order in which social movements are able to achieve the recognition of their aspirations is highly chaotic and unpredictable.

What is more, nothing guarantees that humanity will one day attain a situation of total transparency to itself, when everyone will know what they want and it will be possible to find a solution which is acceptable to the entire community. It can even be shown that there will never be a procedure to bring all individuals, even reasonable individuals, into agreement. And psychoanalysis reminds us that a purely reasonable individual cannot exist. So is it good or bad to transform a thicket into a garden? There is no way to know: everything depends on your taste, on the quantity of thickets, jungles, or gardens around you, and so on. Aesthetics cannot be demystified. This is why there will never be a moment when history can be summed up and perfectly understood.

We know that every definition of "progress" entails a requirement of sustainability, which means that the imperative "thou shalt not kill" now becomes "you must not commit any action that risks causing the death of an individual, neither several generations later, nor at the very end of the world." But if we go one step further, if we are required "not to do to others what you would not have done to you"—Kant's way of secularizing the Christian imperative—then a highly complex situation emerges. Because what would the inhabitants of Bangladesh, two generations from now, not have me do for them today? If the definition of progress in the cen-

tury of the enlightenment was indeed a secularization of Judeo-Christian morality, then think of the image that the prophet Isaiah gave of paradise: "The valleys will be filled and the mountains lowered." An ecologist defending his valley in the Pyrenees probably wouldn't accept that phrase as a definition of paradise!

Thus we no longer even know what will be considered "better" by future generations. This means we must define the changing content of progress democratically, through free deliberation. Are we completely disoriented? No, because a certain number of values seem certain, either because they have been reached through the principle of discussion, in Habermasian fashion, or because they spring from the respect that seizes us whenever we look the other straight in the eyes, as Levinas maintains. What are these values? The first is the value of autonomy: to reach a situation where each person can decide on his or her own fate, as far as possible. Progress then becomes the progress of a community where individuals tend increasingly to grasp and control the ends of their own actions. The second is the value of solidarity, which is one aspect of sustainability: no one must be left out in the cold, the satisfaction of human needs is to be measured by the satisfaction of those who are least well off. Finally, the other aspect of sustainability, the value of responsibility: what is good for us today must be preserved for tomorrow. Such are the values that can sustain a renewed idea of progress—precisely the idea the human race will need in order to face the perils of the twenty-first century.



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