Socio-Environmental Theories: Seeking a New Society

WAGNER COSTA RIBEIRO

In academic debate, one often attempts to explain the emergence of a research topic. The same is true for the so-called environmental question and its growing prominence since the mid-20th century. It beckons us, therefore, to recall the reasons this matter became mandatory in the discussions of politicians, businesspeople, researchers and certain sectors of the social movements.

Closely tied to our condition of being in the world, the environmental issue is fundamental to human existence, for the simple reason that the material basis for the reproduction of life – of the various forms of life – derives from the environment. In other words, it is from the environment that we extract resources to produce shelter, food, technical artifacts and clothing, among the many other things necessary to maintain life, whatever form of social organization humans established over thousands years of their presence on the planet.

History records many major changes on our human journey on Earth, from gatherers to producers of objects, foodstuffs and environments where we all engage in different forms of social interaction regardless of the social structure established by the group.

The importance of the environmental issue to human existence, with its implicit territorial dimension, cannot be overstressed. Resources are scattered across the surface of the globe, as a result of million-year natural processes, and are appropriated by social groups according to their ability to generate technical instruments, which becomes in itself a focus of power, dispute and conflicts.

The reproduction of life requires actions such as eating, obtaining shelter from the elements and building places to produce objects (e.g., today's factories), practice contemplation, find recreation and organize social, religious and mythical events, among the many other significations an edifice may lend itself to. These activities have been transformed over the course of our human adventure on Earth and have become hugely complex in our day.

For instance, food in the past was obtained by collecting what was at hand's reach, whether on ground or not. Later, the use of rock and bone fragments allowed people to slaughter animals and light fires. Today, our food results from sophisticated technologies such as tractors, harvesters, irrigation systems and chemical inputs that replenish the soil's physical characteristics and aggregate substances to increase productivity – but also accumulate over years of use and end up degrading the water and even the soil. It is also important to

mention various forms of preserving food, from nuclear irradiation to freezing or even the addition of chemicals, signaling a great transformation compared to immersion in animal fat or the addition of salt, as was done in the past.

The production of clothes is another example to bear in mind. Regardless of the cultural and aesthetic dimensions attributable to clothing, the function of protecting and giving meaning to human existence remains, whatever changes the manufacture textiles may have undergone. From the direct manipulation of animal skins, we now have threads that are a blend of chemical elements and result in highly flexible materials that, among other attributes, are resistant to low temperatures and to fire, even if for only a few minutes. It should be noted that the use of petroleum is key to the production of synthetic yarns, for example, and is often mixed with vegetable fibers such as cotton.

With regard to the production of environments, the situation is no different. The gamut of materials available for construction is much greater than in the past. Again, we have the admixture of chemicals resulting in materials that are lighter, more durable and resistant to rain, cold, heat and even to extreme short-lived events, such as medium-intensity earthquakes. The standardization of construction processes allows a 20-story building to be erected and completed in about two years. The same can be said of road building, whether streets, overpasses or, in particular, suspension bridges, all of which have added symbolism to the movement of vehicles and people, and given rise to a new dispute: in the recent past, any Brazilian city that wished to show "progress" needed have such a bridge. The aestheticization of the contemporary production of urban objects requires suspension bridges as new landmarks, whatever their cost. The population is forced to somehow find ways to enjoy these engineering works and their symbolic reference to our technical prowess in overcoming obstacles. After all, in the end it is the common folk who must foot the bill of those who chose this type of technical solution over other more affordable means.

As if the aforementioned aspects were not enough, the production of objects also turns the environment into a central factor for the reproduction of capital in the current capitalist dimension. A mode of production based on the continuous production of throwaway objects (no matter if they are in perfectly good condition of use) needs to replenish the material base used to manufacture them. Furthermore, it requires plentiful energy to change the natural state of natural resources (e.g., bauxite) into complex objects such as aircraft, satellites or the thin films that cover chocolate candy and other foods.

One of the major difficulties here is maintaining this type of production in face of the limited supply of nonrenewable resources. It is for no other reason that the development of so-called new materials, combining fine chemistry and biotechnology, is so pressing. The idea is to restore the material base of production, with no thought to the legacy of natural processes, and to create laboratory materials in order to control their reproduction, delivering us from our dependence on nonrenewable resources.

The capitalist mode of production is also responsible for environmental pollution: for the degradation of soil and water, as mentioned, and of the air as well. The first acid rains, recorded in the mid-20th century in areas that had no industrial plants, were signs that heralded the need to reflect about environmental problems in a broader territorial dimension. In other words, it was found that contamination reached areas very distant from the point of emission of pollutants, which were transported by the prevailing winds.

The risk of contamination by pollution has been democratized, although the benefits from capitalist production remain private. That is to say, we have reached what the German sociologist Ulrich Beck (1986) called "society of risk," one that trivializes risks by making their presence seemingly ordinary. Risk is now measured and has been appropriated by capitalist accumulation, because it feeds a large financial sector, namely, insurance.

This array of problems has attracted the attention of many researchers, who at first dedicated themselves overwhelmingly to understanding the dynamics of natural processes. By the 19th century, however, geography was giving clues on how we should approach these problems by proposing as object of study the relationship between society and nature – which many now define as social environmentalism.

It was at the 1992 Earth Summit in Rio de Janeiro that social groups previously critical of each other came together to form a new front for political action, the Brazilian Forum of Non-Governmental Organizations, in preparation for the Rio-92 Conference. Social environmentalism emerged from the confluence of social movements and the environmental movement in the late 1980s, giving new impetus to resume and develop socio-environmental theories, whose key templates are brought together in this dossier.

Sustainability is one of the fulcrums of this discussion, addressed by one of its leading formulators, Ignacy Sachs. In his article, Sachs ponders on the civilization of the future, which will have to be sustainable, based on renewable resources and on social inclusion, through the development of the rural population. He places high stakes in bioenergy, which, according to him, must count on a State that fosters a different kind of development, one that is not measured solely by GDP growth.

José Eli da Veiga discusses this notion in his essay. By analyzing various environmental indicators, deemed by many necessary to plan actions and evaluate the impacts of human activities, the author examines several indexes and their respective problems, including the currently most popular one: the ecological footprint. At the end of his article, he argues that measuring sustainability is not the same as assessing quality of life.

For a long time, economics failed to consider environmental issues. As Clóvis Cavalcanti brilliantly demonstrates, by incorporating the environmental dimension, economic studies have generated a multitude of possibilities – an economic view of ecology, for instance, which he criticizes in a very fruitful

dialogue with exponents of ecological economics like Joan Martínez Alier (2007) and Nicholas Georgescu-Roegen, considered one of its original developers.

Among the challenges that socio-environmental theories seek to address is how to conciliate inclusive development and environmental conservation. The environmental justice movement, for example, sought to establish social inequality as the centerpiece of its demands, which is something quite different from merely adopting an environmental discourse, as Henri Acselrad nicely demonstrates in his contribution to the dossier. Reading his text allows us to distinguish what various segments have to say about the environment.

José Augusto Padua, in turn, shows that environmental concerns were already present in the 18th century. However, he stresses that it was the grassroots mobilization of the last decades that led so many people to awaken to environmental issues and that environmental history is a result of this process associated with a major epistemological renewal in historiographic production.

Wagner Costa Ribeiro asserts that, contrary to what is usually written, the international environmental order has been favorable to poorer countries and those with less military power in today's world. By analyzing international meetings on the environment, he notices that the viewpoint of the poorest countries has been victorious. That is why he emphasizes the importance of conferences and conventions organized by the United Nations, despite the resistance to implement them from rich countries that are also military powers.

This compilation would be incomplete if it made no reference to the results of the most important meeting of the international environmental order in 2009: the Copenhagen Climate Change Conference, held to fine-tune the control of greenhouse gases emissions in the atmosphere. Sérgio Abranches presents an accurate analysis, saying the meeting resulted in advances in some areas, such as the decision to contain the rise in temperature to two degrees, but also frustrated the expectations of international public opinion.

Finally, a word on the man to whom this dossier pays homage: the great geographer Aziz Ab'Sáber, researcher emeritus at the Faculty of Philosophy, Letters and Human Sciences and the Institute of Advanced Studies of the University of São Paulo. In addition to his innovative scientific contributions on the environment, professor Aziz is an example of engagement in social and environmental struggles.

In a way, this group of texts is an extension of the event "Socio-Environmental Challenges for the 21st century: A Tribute to Aziz Ab'Sáber," organized jointly by the Institute of Advanced Studies, the Brazilian Society for the Advancement of Science, the Association of Brazilian Geographers and the Geography Department of the School of Philosophy, Literature and Human Sciences (USP), held in October 2009, which can be watched at <http://www.iea.usp.br/iea/online/midiateca/ambiente/index.html>.

Addressing four main themes, the event enabled reflection on various levels. Internationally, it sought to expand the debate on regulating human

actions over the environment and to determine the effectiveness of the instruments currently in use. Nationally, it assessed Brazil's potential and opportunities in a scenario of technological renovation and exploration of alternative energy sources. On a city level, it confirmed that the reproduction of the geographic space followed a pattern of socio-environmental conditions that segregated poverty and disseminated environmental problems to the entire population, such as those deriving from air pollution in São Paulo.

This agenda requires short-, medium- and long-term solutions. It is important to ask how universities may contribute to solving these problems, which pertain to the reproduction of life in its various forms of expression. It is hoped that this dossier may stimulate further research on socio-environmental matters, leading to a fairer and more balanced society in terms of access to, and proper use of, natural resources.

Bibliographic References

Beck, U. *La sociedad del riesgo.* Madrid: Paidós, 1986.

Martínez Alier, J. *Ecologismo dos pobres.* São Paulo: Contexto, 2007.

Wagner Costa Ribeiro is professor of the School of Philosophy, Literature and Human Sciences (FFLCH-USP) and of the Institute of Advanced Studies (IEA-USP), and researcher of CNPq. @ – wribeiro@usp.br

Received on 3.10.2010 and accepted on 3.15.2010.

Translated by Carlos Malferrari. The original in Portuguese is available at http://www.scielo.br/scielo.php?script=sci_issuetoc&pid=0103-401420100001&lng=pt&nrm=iso.