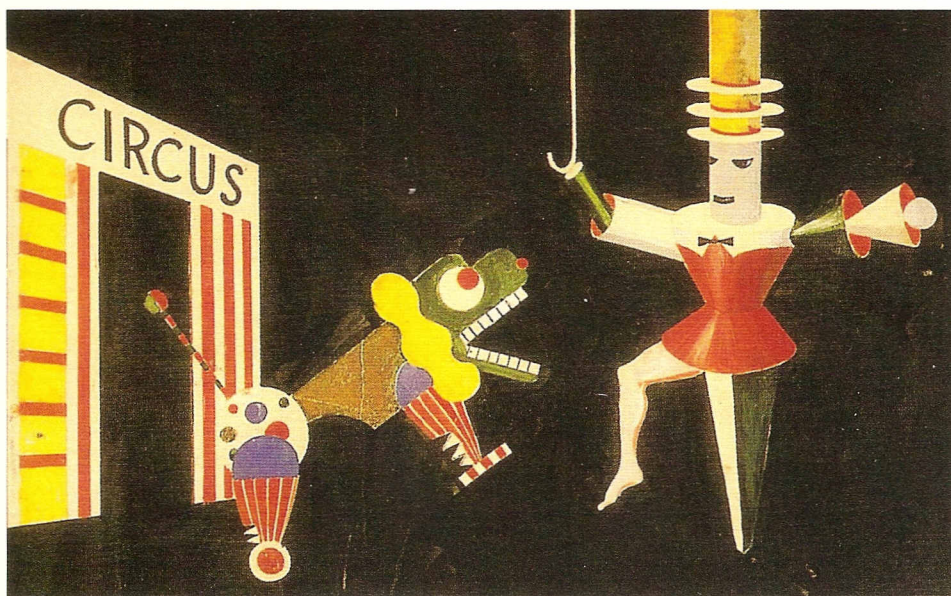


Κριτική

12

Επιστήμη & Εκπαίδευση



Critical Science & Education

"The death of Nature"...

Ecofeminism and History of Science: A critical approach *

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Ecofeminism: history and main ideas

During the 1970's, the feminist movement began to develop a new approach to nature, the environment and politics, which provided the current level of the ecofeminist social movement and activism. In the academia, the discussion about a feminist approach to ecology and environmentalism was the main theme of the conference on "Women and the Environment" organized by the University of California, Berkeley, in 1974 (Glazebrook 2002, 12-26). The term *Ecofeminism*, however, was first used by Francoise d'Eaubonne in her book *Le féminisme ou la mort* (d'Eaubonne 1974) where she encourages women to show their concern on ecological issues.

As a social movement, on the other hand, ecofeminism has been developed in direct relation to the movement of deep ecology and the radical feminist movement, exploring the connection between the exploitation and impoverishment of the natural world and the subordination of women. It should be noted that in this decade, ecology as a research field was at an early stage and so also were feminist studies.

The basic principle of the early environmental movement was that all living beings should be interwoven with the natural environment. This includes humans who are part of the local and global ecosystems. These ecosystems surround living organisms including human beings and thereby impose limits and restrictions on them. The current environmental and ecological problems are caused by the failure of the global population to respect these ecological limits and restrictions.

The ecofeminist current was formed on the basis of these principles and was dedicated in exploring the connection between the oppression of women and the oppression of nature. The ecofeminists argue that it is impossible to talk about environmental change, without putting forward the issue of social change; it is not

possible to examine women's oppression without being mindful of the environmental degradation. In this context, the idea was that the current ecological crisis is attributed to the authoritarian and hierarchical relations that develop among people and between nature and culture. The ecofeminists have posed a series of questions, as exemplified by Carolyn Merchant, some years later:

1. What are the theoretical and historical relations between women and nature, men and culture? Are these relations universal throughout human culture or are they limited spatially and temporally to Western culture and its articulations? How should the critical question formulated "Is female to male as nature is to culture?" be answered?

2. Does women's perception of the environment differ from men's? What are the cultural and historical influences that constitute the perceptual glasses that frame the female response?

3. How has the cultural division between culture and nature in Western society reinforced the perception that women are natural caretakers of the environment as a home for humankind? What has been the political response of both women and men to this dichotomy? (Merchant 1984, 4-5)

The main currents of Ecofeminism

From the 1970's to the present date, a variety of ecofeminist currents has developed, all sharing the vision for an equitable and sustainable future for all. Their common objective is to achieve consensus in the community while respecting the differences. The various Ecofeminist currents are basically interested in improving the relationship between human and nature, but each one builds its own perspective. In order to address the oppression suffered by both women and nature, the ecofeminist currents are seeking the radical change of the social and political structures. Very early within ecofeminism two theoretical trends were formed to account for the association between woman and nature.

According to the first trend, the woman-nature connection is considered as given and is justified by examining the characteristics of both entities. So the female element in nature is overstressed. The ecofeminists overstate the value of female characteristics, in an effort to offset the effects of patriarchy. According the second trend, the woman-nature connection is treated as a social construction. The historical, scientific, religious and ecological implications of this association are explored. More specifically, according to a schematic classification,

the following currents of ecofeminism have been developed: social ecofeminism, materialist social or socio/anarchist ecofeminism, idealist socialecofeminism, cultural ecofeminism, radical ecofeminism, socialist ecofeminism, liberal ecofeminism and ecofeminism of social construction. In the following chapters we examine the main characteristics of these currents.

Social ecofeminism

Social ecofeminism, recognizing that women are shaped in a dominant patriarchal culture and thus shape attitudes and values influenced by the dominance of the nature-culture dualism, argues that we must build a different culture, less oppositional, which will be developed over and beyond dualism. It aims to create a new political program, which could overturn the prevailing systems of domination in relations between humans and between humans and nature. It moves beyond the existing form of culture which is characterized by various forms of oppression, alienation and domination. It suggests a different philosophical framework for developing relations, where there is a moral eco-justice.

The supporters of social ecofeminism favour the social and political aspects of ecofeminism in the expense of the personal and spiritual aspects. Social ecofeminists consider nature more as a political rather than a natural category but at the same time they do not try to reduce all forms of oppression in the oppression of women.

Feminism is gradually moving towards recognizing that the oppression of women is one form of oppression among others. Recently the dominant trends of feminism have begun to see the aspects of gender as mixed with those of class and race. This view places most of us as crosspoints of these networks of power, sometimes as oppressors, sometimes as oppressed. According to this, an environmental ethic should always be the moral of eco-justice which recognizes the links between social dominance and domination of nature (Radford Ruether 1975). This approach is increasingly accepted by supporters of the environmental and social justice movement and part of the feminist movement. Social ecofeminism are seeking to shape a political agenda aiming at the overthrow of the existing systems of domination.

Materialist social or socio/anarchist ecofeminism

Among the founding principles of the current of materialist social or socio/anarchist ecofeminism is that the exploitation of natural resources is associated with social exploitation, focusing more on political and social issues rather than on

the personal aspects of the domination of women. The oppression of women is associated with the class and racial oppression while the way everyone organizes him/herself in order to obtain material commodities play an important role in the functioning of each social formation, and even affects the way that the species tend to reproduce.

According to this current, women and men have different attitudes, different experiences within the capitalist relations of western societies – men are mainly producing goods and offer services in the labour market, while women are usually confined at home producing unprofitable services while the relations between women and nature are based on gender (: social construction practices, characteristics and roles based on sex). So, what unites women with nature is in fact the exploitation and oppression by men, the sexist culture, products, values and practices.

Idealist social ecofeminism

The idealist social ecofeminism argues that a particular approach to knowledge – a set of ideas, economic and social structures, is responsible for destructive actions on nature. So, latent social values must be reformed, and so must the dominant ideas, originating from the hierarchical organization of society.

Cultural ecofeminism

The current of cultural ecofeminism emphasizes on a new spiritual relationship with nature and overstates the importance of personal transformation. It proposes the creation of an alternative "feminine culture" capable of solving the ecological and social problems. The supporters of cultural ecofeminism believe that women have a greater connection with nature which is often considered biologically determined, therefore, believe that only a society controlled by women will reduce aggression and the destruction of nature.

Although cultural ecofeminism supports positions contrary to all kinds of oppression, ultimately seeks to maintain this conflict as it offers more value to the ideas and positions of women against those of men. For example, cultural ecofeminism considers that if women ruled the world, wars would stop and wants to overcome the dominance of men by means of what it defines as special feminine ways and practices.

Radical ecofeminism

Radical ecofeminism considers the patriarchal society as the root of all social evils. It gives great importance to the biological structure. One form of radical femi-

nism is political, rational and theoretical and it believes that the biological structure of women under the influence of patriarchy restricts the access and power of women to public life, so it rejects the view that women are closer to nature.

Radical ecofeminism believes that the oppression of women is the most serious form of oppression, crossing the boundaries of race, culture and class. It is a movement which seeks social change in a somewhat revolutionary way. The members of radical ecofeminism wonder why women must adopt certain roles based on their biological structure and why men act in a specific way. They attempt to set boundaries between the biological behavior in order to liberate both men and women from their narrow gender roles. In contrast, cultural ecofeminism, as we saw above, promotes all that is mainly feminine. It refers with flattering words to women's culture (female music, worship of ancient female deities etc.) and to the relations of women with nature and the animal world. Actually, cultural ecofeminism believes that women and their culture is the key to treating the planet.

Socialist ecofeminism

Socialist ecofeminism approaches woman only as part of the available labour power in the labour market and assesses her position in both production and reproduction. The capitalist patriarchy and the accumulation of goods and profits is the cause of the existing relations of domination among humans leading to the continuous oppression of the weak people, including women.

Liberal ecofeminism

Liberal ecofeminism is mainly concerned with how women will achieve equality and lift their embargo from the existing professional and social status quo. On the other hand, it believes that current environmental problems will be addressed by the progress of science, by a new legal framework and highlights the need for conservation and of the survival of the human community. It therefore proposes a redefinition of the environmental issue, which is crucial to women's equal participation in environmental management. So, liberal ecofeminism does not aim at any change in the existing social model, it simply aims in integrating women into the existing social system.

Ecofeminism of social construction

This current of ecofeminism criticizes the basic positions and ideas of social ecofeminism and especially the views on the biological linking of women with

mother-nature. It contradicts the position of psycho-organic ecofeminism, arguing that the woman-nature connection is a social construction, which is a product of male domination. It believes that the woman-nature connection is a construction of Western culture aiming in the degradation of both. Women are not the only oppressed group and it is very difficult to prove that the exploitation of women and nature is due to the patriarchy alone because, for example, the domination can be attributed to various reasons.

Carolyn Merchant and her work on history of women and ecology

The work of Carolyn Merchant *The death of nature. Women, ecology and the scientific revolution* (Merchant 1990) was written at a time when all three foundational components of the title were at the crossroads: i) the environmental movement in the USA was assessing the first major nuclear accident at Three Miles Island, Pennsylvania, in 1978, ii) the feminist movement was trying to be established in academia, after a strong activist presence, iii) the work of Steven Shapin of the Edinburgh Strong Program challenges the very notion of the Scientific Revolution as it appears in the historiographical tradition (Shapin 1996). For the American social reality of the 80's, which is primarily what Merchant is trying to interpret – to change, as will be seen below, the book appears in a crucial moment: when justice, nature and geography of the differences, according to D. Harvey (Harvey 1996), are placed under review since the environmental inequalities are closely related to the geography of race and class.

Carolyn Merchant, starting with questions concerning the environmental and social justice, and with a Marxist materialist approach and methodology clearly influenced by the historiographical approach of Boris Hessen and Edgar Zilsel (Mitman 2006, 498), starts from the point that domination over the socially weak, as is women and nature, is based on historical and social constructions.

The woman-nature connection acquires a meaning according to the ideology and norms of the social structures in which people are born, socialized and trained. People live in specific social formations, in specific historical periods in which the image of nature gives meaning to their lives as members of the dominated or the dominant classes, as women or men, as Western or not. So the historian of science has to examine how people historically have tried to understand nature, keeping away from substantialist interpretations. Merchant raises this question for the period of the origins of capitalism, which she connects with modern science.

Women, nature and the formation of modern science

Merchant adopts as a working hypothesis the ideas about nature developed during the Scientific Revolution, namely the establishment of modern science in the 17th-18th century, and connects these ideas with women. She aims to study and devise the principles associated with the images of women and nature in relation to the formation of modernity and its impact on modern life.

In this context, Merchant explores the origins of modern science, as shown in the works of scholars of different interests, such as Bacon, Harvey, Descartes, Hobbes and Newton. She tries to explain the development of the new mechanistic model of the world which is embraced by modern science and involves the death of nature as a living organism, as exemplified in the previous organic world-view.

Here Merchant introduces the dipole organic-mechanistic, each pole representing different conceptions and meanings about nature. According to the organic conception, nature is a living organism, largely unregulated. The female name adopted in all languages (Nature, natura, die natur, etc.) connects nature with women ("mother-earth" is not only symbolic) whatever this implies for the uncontrolled and violent natural phenomena and their relationship with female nature and behaviour. The mechanical model is introduced, however, in the 17th-18th century and will prevail, giving to nature the characteristics of the machine. Nature ceases to be magical and acquires the characteristics of a machine, which man can control. In order to be able to impose his control, man must dominate nature, forcing her to reveal its secrets. Even by torture, like those that at the same time were imposed on witches by law in order to confess and disclose their own secrets (Merchant 2006, 513-533).

Metaphors for dominance, as evidenced by discourse analysis, are more than enlightening: the experimental method which is fighting "nature", "stalking", "leading", "enslaves" etc. (Merchant 2006, 525).

In the case of nature, the one exercising torture is science and technology, which is inextricably linked with the male sex. For example, in the *New Atlantis* of Bacon man is identified with the scientist, and the whole book adopts a severe patriarchal structure (Merchant 1990, 172).

In this context, the witches represent earlier forms of "science", which should be replaced by the new, experimental science (Merchant 1990, 140). In this new culture of experimental dominance, experiments are introduced on living organisms, animals and women (Merchant 2006).

These developments occur at a time, the dawn of modern capitalism, where the role of women in production is becoming increasingly secondary. Woman in the capitalist mode of production, a prerequisite for modern science as argued by Hessen (Hessen 2009), is marginalized, her role is largely limited to that of spouse or in the best case to occupy minor production positions. The new family in capitalism is patriarchal, and so are the societies under transformation (Merchant 1990, 149). Women are excluded from economic and political life, and consequently science. The new science is structured on the basis of gender, according to a male model.

Carolyn Merchant argues that western civilization was established on the basis of differences in which the first part dominates the second e.g. objective-subjective, male-female, culture-nature resulting in the historically constituted notions of scientific knowledge and masculinity, pointing towards the legitimization of the exploitation of nature and women, after being attributed the same characteristics. Merchant's argument, of course, goes much further in depth, examining changes in perceptions of nature in relation to what they bring to production. Starting from the perception that natural and human environment is an interdependent system (Merchant 1990, 142), historically evolving, investigating how changes in production methods affect nature and reshape the natural and human environment.

After the death...

The Death of Nature, therefore, means the domination of mechanistic model for interpretation, and the prevalence of the gender dimension on modern science. The argument introduces the gender dimension in the historiography of modern science and the establishment of the modern worldview for the natural and social world including human physiology, which eventually legitimizes the domination on both nature and women.

According to the genealogy of capitalism, based on Merchant, these forms of domination are structural features. This is the main idea that established the basic current of ecofeminism developed mainly in the decades of 1980 and 1990 with a certain misconception that is worth to examine. Carolyn Merchant in no way connects woman with nature through an essentialist consideration. However, such ideas were very popular among scholars have been working in the field and in popular readings. The Great Goddess, a symbol of the organic model, acted as a proposal for returning to nature. By defining "woman" as a universal, giving her universal properties and behaviors in no relation whatsoever to a series of

features constituting her identity such as class, race, ethnicity, age, etc., and additionally by adopting an essentialist historical definition of nature, despite its already long tradition of historical geography and history of the rural economy developed from the mid-20th century,¹ lead to a version of a «non human» environmental history, in direct contradiction with the goals initially set by the project of ecofeminism.

Merchant's argument, however, is very focused: a history is constituted in which the domination over woman and nature comes as a result of the different and multiple forms of material, ideological and epistemological changes and events that have occurred since the Scientific Revolution and beyond.

Today, based on what has already been discussed by Merchant we stand in front of a paradigm change, with a new worldview: the mechanistic model that was introduced with modern science is already under challenge: very important in this area is the theory of David Bohm - disputing the mechanistic perception of nature. On the other hand, the same environmental problems lead to a search for a new mode of production that would not burden the environment.

So the material conditions themselves impose a change. In this context, her objective and the goal of socialist ecofeminism, according to her, should be the knowledge of the conditions of production and reproduction, which led to today's conditions, in order to have a new mode of production based on, among others, recyclable renewed energy sources, conservation of non-renewable sources and building ecosystems based on human physical and spiritual needs.

In this context, the objective of eco-feminism is women themselves to address contemporary ideas for the subordinate position of women and nature for a general social change.

Today...

Merchant's book finally sets a political goal: to change the mode of production in order to be more ecologically balanced and to abolish gendered inequalities. It remains to be discussed at an academic level, an important methodological proposal for the understanding of past social formations and the material conditions for their transformations given the multiplicity of factors affecting social systems.

Note

¹ We refer to the school of Annales and to historians such as Braundel, Landurie etc.

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