
The discourse of the Greek environmental movement about science, technology and development in the 1980's and the process of its institutionalization

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This research studies the discourse produced by the Greek environmental movement in the 1980's as far as science, technology and development are concerned, based on the four most significant environmental publications of the time: "Nea Oikologia" (New Ecology), "Oikologia kai Perivallon" (Ecology and Environment), "Oikologiki Efimerida" (Environmental News) and "Anthi tou Kakou" (Flowers of Evil).

The origins of the environmental movement worldwide date back to the 60's when new movements came to the political foreground, known as "new oppositional social movements". In the 70's the environmental movement underwent a process of radicalization and started working out alternative approaches to science and technology, being extremely critical to the concept of exploiting nature which inspires science and its interaction with the industrial-military complex. The environmental movement in the 70's also suggested alternative, democratic, collec-

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tive, organizational forms of knowledge production (Jamison, 2006). In the 80's many features were radically modified and gave rise to a more institutionalized form of environmental politics, science and technology.

The environmental movement cannot be considered as a unity and it could be divided into two major fields: the Radical Environmental Movements and the Institutional Ecology (Naksakis, 1997; Stavrakakis, 1998; Skordoulis, 2008). Further categories could be added to this basic scheme of distinction, such as Scientific Ecology as well as sections of Political Ecology which combine traditions. The rest of the Radical current's components are classified by Merchant (Skordoulis, 2008) to these types: Spiritual Ecology, Deep Ecology, Eco-feminism and Social Ecologies, such as Bookchin's Eco-anarchy and Socialist Ecology.

A different perception of the scientific framework has emerged from the Ecological Movement, in particular the relation between science and nature. According to Merchant, the rejection of animistic and organic assumptions of the world, leads to "death of nature" By removing animistic and organic assumptions about the cosmos, nature's death took place which is by far the most important influence of the Scientific Revolution. Since nature was viewed as a system of dead, static particles put into motion by exterior forces, nature's manipulation could be legitimated by the mechanistic framework which was imposed upon an organic world, according to the needs of the emerging capitalism. Yet, despite the establishment of a mechanic analysis of reality in the western world since 17th century, organismic view did not disappear completely and lingered as a significant tendency which came to the foreground in many variations from time to time, such as the Romantic opposition to the Enlightenment, and Karl Marx's early philosophy. Ecological science and the conservation of natural resources result from this very tendency.

Scientific Ecology came first strongly supporting the environmental movement and was fueled later by the Political and Social Ecology, maintaining a fundamentally contradictory relation with the two latter (Baltas, 1983; Naxakis, 1997). This kind of contradictory relation between science and the environmental movement is expressed differently in every one of the currents: Institutional Ecology, on the one hand, accepts technology and science as a solution to the environmental problems, whereas the components of Radical Ecology on the other hand, criticize the mechanistic approach and the reductionism of classical Newtonian science as well as the domination of the fragmentary, putting forward the holistic approach instead (Skordoulis, 2008).

It is of high importance to look into the way the movements influenced science as far as the relation between environmental movements and science is concerned. Jamison (2006) states that social movements play a vitally important role for the creation of scientific knowledge, involving the 'cognitive praxis', a procedure during which the various movement intellectuals play an important role by combining social forms of knowledge with roles which were separated before the existence of those movements through a process of 'hybridization'. Social movements coin new public fields where innovative forms of cognitive praxis emerge combining new worldviews with alternative forms of organization and technological criteria. Through the process of cultural adaptation, certain ideas, techniques and forms of organization are added to those movements' cognitive practices and end up being socially accepted forms of knowledge production. Adaptation may take place as a process of 'institutionalization', where less official areas of knowledge production created by the movements can be replaced by the established organizational forms.

The environmental movement in Greece goes through three stages of evolution, according to Alexandropoulos, Serntedakis and Mpotetsagias (2007). The initial stage was a period of envi-



ronmental protest during the 1970's when environmental downgrading is regarded as a social problem for the first time. The second stage is characterized by diffusion and development of environmental action and the emergence of "green policies" in the late 1980's through the creation of the short-lived Federation of Environmental and Alternative Organizations (OOEO) and their short parliamentary representation in '89. At that time environmental problems were being treated as political issues. The third stage is the late phase which was marked by the failure to establish a political corpus. During this period the Greek environmental movement was characterized by a tendency to decentralization, fragmentation, professionalization multiplication of the relations with government entities at a national and international level, as well as the relations with international environmental organizations.

Leftists were over-represented among the environmental groups in the 80's and they can be divided into three groups: the "Environmental Ecologists" stood for a less radical ecology with a more technocratic profile, the "Alternative Ecologists" thought that they had a more holistic approach to human liberation rather than a strict environmental belief, and finally the "Alternative Environmental Left" was a rather multifarious and fragmentary political area. The Greek environmental movement was mainly influenced by the environmental movements that were mostly socialist (Mpotetzagias, 2003; Alexandropoulos et. al. 2007).

One of the fundamental questions is what kind of ideas were processed and which of the existing issues did the formulated ideas concern. If one focuses on the area of science, technology and development in the 80's which was thriving, the question can be rephrased: did the environmental movement have a coherent elaboration about science, technology and development? In what way did this movement criticize the common belief for the above concepts and how did it view science? In order to in-

vestigate these issues we will look into the environmental movement's public discourse, as resulting from the committed environmental press at that time (Nea Oikologia, Oikologia kai Perivallon, Oikologiki Ephimerida and Anthi tou Kakou).

These magazines seem to be the most important publications at that time, according to literature (Louloudis, 1987; Mpotetzagias, 2003; Alexandropoulos, 2007) and their report on the political areas engaged to the environmental movement is quite thorough. The Qualitative Content Analysis was chosen due to the vast amount of the gathered articles (145). This kind of analysis retains all the advantages of a quantitative analysis, advancing, though, to a further qualitative-interpretative exploitation of these advantages (Mayring, 2000 in: Pagkourelia and Papadopoulou, 2009). Furthermore, the ideological affiliations of the articles are studied in more detail in an attempt of a qualitative analysis.

The categories were defined inductively based on the theoretical aspects of the analysis and they describe the categorization of the environmental movements regarding social and scientific assumptions. Therefore, in order to find out whether the discourse within the texts is critical or not as far as science, technology and development are concerned and moreover what kind of discourse this is, the categorization proposed was based on the currents. Additionally, since we are aware of the correlation between political areas and environmental movements, politically characterized categories were created and finally, one more was created: this one refers to NGO (Non-Governmental Organizations) as a source of a non-radical, more institutional discourse.

Quantitative analysis gave us a good overview; most of the articles were drawn on "Nea Oikologia". Overall, the articles having a critical approach were less than the ones which did not approach the issues critically. The majority of the articles do not criticize science, whereas most of the articles with a critical ap-



proach deal with development and technology. Critical discourse usually connected with political ecology. The latter, as a political area, monopolizes all the spectrum of political views. There is not a single article where liberal ideas are expressed. As far as the magazines are concerned, "Nea Oikologia" is set within a more technocratic, non-critical framework, followed by "Oikologia kai Perivallon", while on the other hand "Oikologiki Efimerida" and "Ta Anthi tou Kakou" share a more critical approach.

Having an insight into the topic, it can be concluded that critical discourse deals mostly with development issues. Science and technology only when related to society effects become minor parts of the critical discourse. On the other hand, it should be emphasized that the principal discourse within the movement, was not a critical one, but a more technocratic approach. Especially when it comes to development, productivistic ideas of the traditional Left are strongly criticized in an attempt to differentiate the environmental movement from the traditional Left, and also to criticize socialist countries. Therefore, critical discourse seems, on the whole, to be socially orientated; it is generally political, forming part of the Left and the Marxist spectrum of political views. The discourse about science falls into difficulties to produce profound criticism about it's very own coherent elaboration. Few of the articles criticize the positivism, reductionism etc. whereas when this criticism is voiced, neither positive targets for "a different science", nor praxes and actions for "science in the sake of society" and "science shops" emerge. The discourse of technology follows the same pattern, with only one difference: the articles published are more interested in technology's criticism (since it is directly related to society).

The above remarks confirm the view shared also by the relevant literature (Mpotetzagias, 2003; Alexandropoulos et. al., 2007), that the Greek environmental movement originated mainly from the Greek Left and was under great political pres-

sure during a period of public discourse's over-politicization; in addition, the environmental movement did not succeed in forming an autonomous critical discourse or well-formed views. Its political death during the 90's after the Federation's collapse coincided, unfortunately, with the radical environmental discourse's recession worldwide and the emergence of non-political NGO not allowing any further processing of the involved ideas and concepts.

Within the framework set by Jamison (2006) the process of cognitive praxis of the movement in Greece was anemic. The process of institutionalization did take place since the middle 80's and then. At that time, intellectuals of the movement devoted themselves to theory production. The institutionalization of the Greek environmental movement is obvious even in middle '80's in the thesis of all political parties (Tsakiris, 1997), and the new law about the environment. In an academic level new Departments relative to ecology are established and many intellectuals of the movement are promoted into. Moreover, the school curriculum incorporates the environmental concern. Yet, a massive environmental movement following the necessary practices and having an autonomous identity did not existed. Instead, the Greek environmental movement identifies itself with Left's strong public presence, whereas its efforts to form autonomous politics are rather short.

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