

Philosophical and epistemological basis of environmental studies

This type of environmental history is anthropocentric and part of the more traditional approaches of political, administrative and intellectual history. It can be described as “green history” and charts the origins of environmentalism and the roots of our modern attitudes towards nature. To understand the origins of modern environmentalism and our attitudes to nature we need to enter into debates about the nature and origins of contributing fields and currents such as the Frankfurt school, Romanticism, oriental philosophy, monism, rationalism and even Nazism. That is what Anna Bramwell does in her book *Ecology in the 20th Century*. This book, as she explains in the introduction, examines “the thinkers who represent most significantly the roots of ecological ideas”. But this kind of history is not limited to the 20th century and its origins can be traced all the way back to antiquity. It is often said that Palaeolithic hunter-gatherers lived in harmony with nature. In his book *The Idea of Wilderness* Oelschlager shows himself an adherent of this idea and for him it is the starting point of the evolution of the human perception of nature and wilderness. During the Palaeolithic time of harmony there was plenty of food and resources for humans and the conception of nature was that humans were part of it at that time and nature was cyclical. During the Neolithic period when agriculture was introduced a split between human culture and nature emerged. Humans increasingly regarded themselves as separated from nature, and that nature was designed and created for their benefit. If land was not suitable, humans had the ability to alter it and make it useful. According to Oelschlager is this development the moment that natural degeneration began. The result of the emergence of agriculture in the Near East was that Mediterranean peoples became increasingly adept at and aggressive in their endeavours to humanise the landscape. On the other hand, the increasing reliance also made them aware that their civilisations depended on nature but also of their distinctiveness of nature. As a result of this contradiction, they devised increasingly abstract and complicated explanatory schemes to explain human separation and domination of nature but also failure to control nature, for example in the case of flooding or drought. The limitations of mastery over nature were explained with forces beyond human control such as deities. But in general, the Mediterranean landscape was regarded as divine and designed for humans to live in, to alter at will and to dominate.

Out if these rationalisations emerged Greek philosophy and Judaism. Both traditions rationalised the world in their own way. Greek rationalism abandoned mythology for explicit theory and definition and Judaism rationalised the world using a metaphysical framework that

explained the world in a metaphoric, allegorical and symbolic way. Judaism and Greek rationalism came together in Christianity within which the philosophical edifice of Platonism was used to create the concept that ruled the west for the past 2000 years.

Greek rationalism and Christianity created a concept in which nature was conceived as having no value until humanised. Two other aspects of this tradition are anthropocentrism and the linear conception of time instead of cyclical. This meant that history was teleological, which means that it was pointing in one direction to an ultimate goal of perfection. This manner of thinking is known as the Judeo-Christian tradition. In environmentalist literature it is not uncommon to blame the roots of our ecological crisis on the attitudes of the Judeo-Christian tradition towards nature. Lynn White, an American historian, first conceived this hypothesis in 1967 and published his ideas in an article in *Science* entitled “The Historical Roots of our Ecological Crisis”. In this article he argued that Judeo-Christianity preaches that human are separate from and superior to the rest of nature. He wrote that “Christianity ... not only established a dualism of man and nature but also insisted that it is God’s will that man exploit nature”. In this view nature was created by God to be used and dominated by humankind. According to White, this attitude has translated into harmful attitudes and actions towards nature with the application of technology during.

Although White’s thesis has become a forceful argument used by the environmental movement, it has also been heavily criticised. Pepper sums up some of the most important criticisms and notes that other non-Christian cultures have also abused nature. For example, the ancient Romans exploited nature more intensive than medieval Christianity by exhausting soils in North Africa and destroying forests around the Mediterranean.

The same can be said about the idea of the domination over nature granted by the Christian doctrine. Again, it is not unique and other religions are also stressing human domination over nature. A very important aspect of criticism is the fact that during the Middle Ages older magical, astronomical and spiritual traditions were still more important for most people than White presents it and he tends to overlook other and older cultural influences that are present under the Christian surface. Last but not least, Pepper adds that White overestimates how much religious values influenced general values and actions towards nature during the Middle Ages. It appears that material changes are more important and powerful than religious ones. The rise of capitalism made Christians exploit nature on a scale never seen under the Judeo-Christian doctrines. In the end capitalism had a much greater impact on western attitudes towards nature than theology because the rise of capitalism commoditised nature, labour, and land. The cause of this development was the transformation from feudalism to

capitalism during which previous pressures to get more out of the land were intensified. Thus, the ideology of (scientific) agricultural improvement gained sway.

It has also been argued that there were theological reasons to drain marches and clear forests. According to Midgley wilderness was a challenge to the medieval mind. It was regarded as a “horrid desert of wild beasts” and as the source of all paganism and evil. Cultivating and taming the wilderness was seen as a contribution to the fulfilment of God’s plan (the linear conception of time). Simultaneously it exercised human dominion over nature and exterminating paganism. But we might wonder if people in the Middle Ages actually looked upon nature as described by Midgely.

The period before the Renaissance was monistic rather than dualistic, which means that the cosmos was regarded as a whole in which humans were microcosms in a larger order. The medieval view of nature was that the world was a divine organism in which every plant, creature, everything had its place given by God. This place was to be found on the “Chain of Being”. This chain hung from the top of the hierarchy, the place where God resided, to the four basic elements, earth, air, water and fire. God was the source of life and did not remain in himself and spilled over, generating in plenty and bringing life to the things lower on the chain. In this way all things were linked and interdependent as an organic whole and if one part of the chain was removed, the whole chain of being was in jeopardy. It was as if an organ was cut out of a human being and without the organ he cannot live. Achterhuis adds that the metaphor used for the divine organism was that of the ancient image of Mother Earth. This metaphor was used until the start of the modern period.

During the Renaissance nature was seen as a book made up of a system of signs and this book needed to be carefully read and studied in order to understand the cosmos and our place in it. The endeavour to “read the book of nature” carried the seed for the Scientific Revolution. The search for the cosmic order led to the discovery of the heliocentric cosmos, Kepler’s laws of the planets’ orbits and ultimately Newton’s laws describing gravity. In the 17th century scientists and philosophers tried to understand God’s creation with the new scientific paradigm that was emerging. They saw the scientific method as an instrument to read the book of nature. Anyone who could read the book and understand nature was able to understand the will of God. He was regarded as the “watch-maker”; the supreme designer and engineer of nature which was made in His image and according to His plan. However, it became soon clear that the founders of modern scientific thought, among them Bacon and Descartes, abandoned the theological foundations of science. For Bacon the aim of science was “to lay the foundation, not of any sect or doctrine, but of human utility and power” in

order to “conquer nature in action”. To achieve this goal the scientific method was seen as the foundation of all human knowledge. The scientific method is analytical, experimental and reductionist and seeks to understand the world by taking the “machine of nature” to pieces to see how it works. Mathematics became the language to describe real knowledge about the world. In doing so the new paradigm became: what truly real is, is mathematical and measurable; what cannot be measured cannot have true existence. According to Descartes nature is governed by “natural laws”, which can be measured but as a result nature disappears behind a facade of measurable and abstract quantities. What we normally call nature is completely disappeared with Descartes and reduced to numbers; hence this is called the reductionist method. For Descartes nature was a realm that cannot be observed by our own sense but can only be known through the power of reason, what means by rational thinking. In this way nature is reduced to a tool that can be used for the benefit of human society.

References

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