

## Ecology and Conservation: *Oikonomia* and *Isonomia* in the Development of Ecology

Although Ernst Haeckel is credited with coining the term *Oecologie* in 1877 scholars tend to look toward the term *Oeconomia Naturae*, as first used by Sir Kenelm Digby in 1658 and later popularized by Linnaeus in 1749 (e.g. Egerton 1973, 2012; McIntosh 1987), as the “first sketch of a science of ecology.” This paper attempts to recover the roles of *Oikonomia* and *Isonomia* as used by the Epicureans Philodemus and Lucretius in the development of the “balance of nature” concepts that embody the *Oeconomia Naturae*. Analysis of Epicurean texts such as Philodemus’ *Peri Oikonomias* and Lucretius’ *De Rerum Natura* illustrates how the political dimensions of *oikonomia* and *isonomia* are mapped onto the landscape of early environmental thought.

The first part of this paper explores the transformation of economic thought evident in the Epicurean Philodemus’ *Peri Oikonomias*. The treatises of Xenophon and Theophrastus (Ps. Aristotle) typically identify the four domains of property management as κτήσις (acquisition), φυλακή (preservation), διακόμησις (orderly arrangement), and χρῆσις (use), and tend to emphasize the importance of acquisition of wealth and attention to growth (through the maximizing of profits and minimizing of losses). These economic principles, therefore, are at odds with balance, which is central to the *Oeconomia Naturae*. Philodemus’ emphasis on φυλακή (i.e. preservation, conservation, stewardship) becomes a more likely candidate for the underlying principles of the *Oeconomia Naturae*. We see the emphasis on φυλακή in Philodemus’ identification of the chief drains of economic resources. These causes of losses – extravagant life-styles, pretentious and flamboyant actions, fear of the gods, of death, and of pains (col. xxiii.36- col. xxiv.11) –reflect the same sources of turmoil that knowledge of Epicurean physics removes. Thus, in Philodemus’ economic treatise, the domain of conservation

and stewardship embodied in the term φυλακή illustrates the interconnectedness of the atoms and void comprising the universe and cultural construct of wealth.

The second part of this paper demonstrates how these Epicurean economic principles function in Lucretius' comments about the survival of animal species (*DRN* 5.857-870). In this passage, we see an economic relationship between humans and animals that goes beyond the typical Aristotelian concept of animals existing for mankind (e.g. *Politics* 1256b15-26). Instead, Lucretius' use of the terms *tutela*, *utilitas*, and *praemia* reflect Philodemus' economic principles. Flight from predators and the desire for peace emphasizes man's role as guardians of nature. Mankind's protection of animals parallels the protections afforded by friendships (*amicitiam*) and pacts (*foedera*), which ultimately contribute to the survival of the human race (*DRN* 5.1019-1027). These passages also resonate with Philodemus' remarks on protecting one's resources through investing in friendships and relationships (col. xxv.14-23). Thus, Epicurean estate-management's emphasis on φυλακή when considered with regard to the natural world, as Lucretius suggests, is suggestive of the ideas of conservation, stewardship, and management that remain central to the rhetoric of the Environment.

This paper concludes with a brief discussion of *Isonomia* as a complementary influence in the development of ecological thought. Anaximander's description of nature "as a self-regulative equilibrium, a system whose 'justice' is preserved by the internal equipoise of its components," (Vlastos 362) is fundamental to *DRN*, whether Lucretius is explaining why certain animal populations are limited to specific habitats (*DRN* 2.532-546), the equipoised combinations of creation and dissolutions of destruction (*DRN* 2.569-580), or the multiplicity of plausible explanations for various celestial phenomena (*DRN* 5.509-771). Implicit in *Isonomia*, then, is the attention to rates of reproduction, recognition of habitat, and awareness of mutual

relationships between different species. Thus, this principle expresses a number of the key concepts in ecological thought, which are rooted in the *Oeconomia Naturae*.

The popularization of Epicurean concepts in Lucretius' *De Rerum Natura* not only influenced the development of disciplines such as physics, chemistry, and biology, but provides an interdisciplinary foundation for ecology as well. In this paper, I argue that *Oikonomia* and the associated principle of *Isonomia* at work within *De Rerum Natura* are fundamental to the development of environmental thought. The use of these theories in Lucretius suggests a sophisticated appreciation for the relationship between environment, economy, and politics. This paper allows the unique perspective of Classical Studies to engage in the continuing conversation concerning politics and environment within an expanding field of the Environmental Humanities.

#### Bibliography

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